

Technical Report for

Anderson, Mulholland & Associates

BMSMC, Building 5 Area, PR

SM04.00.06

SGS Accutest Job Number: JC15796

Sampling Date: 03/07/16



Report to:

**Anderson, Mulholland & Associates
2700 Westchester Avenue Suite 417
Purchase, NY 10577
ttaylor@amaiconsult.com**

ATTN: Terry Taylor

Total number of pages in report: 861



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

**Nancy Cole
Laboratory Director**

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, TX, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	4	1
Section 2: Case Narrative/Conformance Summary	5	2
Section 3: Summary of Hits	7	3
Section 4: Sample Results	8	4
4.1: JC15796-1: S-29R	9	5
4.2: JC15796-2: S-31R(2)	17	6
4.3: JC15796-3: EB030716	25	7
4.4: JC15796-4: TB030716	33	8
Section 5: Misc. Forms	36	9
5.1: Chain of Custody	37	10
5.2: Sample Tracking Chronicle	40	11
5.3: Internal Chain of Custody	41	12
Section 6: GC/MS Volatiles - QC Data Summaries	46	13
6.1: Method Blank Summary	47	
6.2: Blank Spike Summary	51	
6.3: Matrix Spike/Matrix Spike Duplicate Summary	55	
6.4: Instrument Performance Checks (BFB)	59	
6.5: Internal Standard Area Summaries	62	
6.6: Surrogate Recovery Summaries	64	
6.7: Initial and Continuing Calibration Summaries	65	
Section 7: GC/MS Volatiles - Raw Data	82	
7.1: Samples	83	
7.2: Method Blanks	102	
7.3: Blank Spikes	106	
7.4: Matrix Spike/Matrix Spike Duplicates	114	
7.5: Instrument Performance Checks (BFB)	130	
7.6: Initial and Continuing Calibrations	136	
7.7: Instrument Run Logs	192	
Section 8: GC/MS Semi-volatiles - QC Data Summaries	198	
8.1: Method Blank Summary	199	
8.2: Blank Spike Summary	203	
8.3: Matrix Spike/Matrix Spike Duplicate Summary	207	
8.4: Instrument Performance Checks (DFTPP)	211	
8.5: Internal Standard Area Summaries	219	
8.6: Surrogate Recovery Summaries	221	
8.7: Initial and Continuing Calibration Summaries	223	
Section 9: GC/MS Semi-volatiles - Raw Data	259	
9.1: Samples	260	
9.2: Method Blanks	281	
9.3: Blank Spikes	285	
9.4: Matrix Spike/Matrix Spike Duplicates	295	
9.5: Instrument Performance Checks (DFTPP)	309	

Table of Contents

-2-

9.6: Initial and Continuing Calibrations	344
9.7: Instrument Run Logs	578
9.8: Prep Logs	588
Section 10: GC Volatiles - QC Data Summaries	590
10.1: Method Blank Summary	591
10.2: Blank Spike Summary	593
10.3: Matrix Spike/Matrix Spike Duplicate Summary	594
10.4: GC Identification Summaries (Hits)	595
10.5: Surrogate Recovery Summaries	599
10.6: GC Surrogate Retention Time Summaries	600
10.7: Initial and Continuing Calibration Summaries	602
Section 11: GC Volatiles - Raw Data	607
11.1: Samples	608
11.2: Method Blanks	616
11.3: Blank Spikes	620
11.4: Matrix Spike/Matrix Spike Duplicates	627
11.5: Initial and Continuing Calibrations	631
11.6: Instrument Run Logs	675
Section 12: GC Semi-volatiles - QC Data Summaries	678
12.1: Method Blank Summary	679
12.2: Blank Spike Summary	680
12.3: Matrix Spike/Matrix Spike Duplicate Summary	681
12.4: Internal Standard Area Summaries	682
12.5: DDT/Endrin Breakdown Checks	683
12.6: GC Identification Summaries (Hits)	686
12.7: Surrogate Recovery Summaries	689
12.8: GC Surrogate Retention Time Summaries	690
12.9: Initial and Continuing Calibration Summaries	691
Section 13: GC Semi-volatiles - Raw Data	702
13.1: Samples	703
13.2: Method Blanks	712
13.3: Blank Spikes	719
13.4: Matrix Spike/Matrix Spike Duplicates	726
13.5: DDT/Endrin Breakdown Checks	746
13.6: Initial and Continuing Calibrations	770
13.7: Instrument Run Logs	852
13.8: Prep Logs	861

1

2

3

4

5

6

7

8

9

10

11

12

13



Sample Summary

Anderson, Mulholland & Associates

Job No: JC15796

**BMSMC, Building 5 Area, PR
Project No: SM04.00.06**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC15796-1	03/07/16	11:14 NMR	03/09/16	AQ	Ground Water	S-29R
JC15796-1D	03/07/16	11:35 NMR	03/09/16	AQ	Water Dup/MSD	S-29R MSD
JC15796-1S	03/07/16	11:25 NMR	03/09/16	AQ	Water Matrix Spike	S-29R MS
JC15796-2	03/07/16	14:28 NMR	03/09/16	AQ	Ground Water	S-31R(2)
JC15796-3	03/07/16	16:51 NMR	03/09/16	AQ	Equipment Blank	EB030716
JC15796-4	03/07/16	16:51 NMR	03/09/16	AQ	Trip Blank Water	TB030716

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Anderson, Mulholland & Associates

Job No JC15796

Site: BMSMC, Building 5 Area, PR

Report Date 3/23/2016 4:33:45 PM

On 03/09/2016, 3 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 4.4 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JC15796 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V2A7072

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15796-1MS, JC15796-1MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** V2A7074

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15990-9MS, JC15990-9MSD were used as the QC samples indicated.
- JC15990-9MS: (pH=5)Sample pH did not satisfy field preservation criteria.
- JC15990-9MSD: (pH=5)Sample pH did not satisfy field preservation criteria.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP92023

- All samples were extracted within the recommended method holding time.
- Sample(s) JC15796-1MS, JC15796-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for bis(2-Chloroisopropyl)ether are outside control limits. Outside control limits due to matrix interference.
- JC15796-2: There is no sample left to reextract for low surrogates.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP92023A

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15796-1MS, JC15796-1MSD were used as the QC samples indicated.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for 1,4-Dioxane are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- OP92023A-MS/MSD for Phenol-d5: Outside of control limits, but within reasonable method recovery limits.

Volatiles by GC By Method SW846-8015C (DAI)

Matrix: AQ

Batch ID: GGH5211

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC15796-1MS, JC15796-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846 8081B

Matrix: AQ

Batch ID: OP92024

- All samples were extracted within the recommended method holding time.
- Sample(s) JC15796-1MS, JC15796-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for 4,4'-DDD, 4,4'-DDT are outside the QC limits.
- OP92024-MB1 for Decachlorobiphenyl: High percent recoveries and no positive found in the QC batch.
- OP92024-MB1 for Tetrachloro-m-xylene: High percent recoveries and no positive found in the QC batch.
- OP92024-BS1 for Decachlorobiphenyl: High percent recoveries and no positive found in the QC batch.
- OP92024-MS/MSD for Decachlorobiphenyl: Outside the QC limits.
- OP92024-MSD for Decachlorobiphenyl: Outside the QC limits.
- JC15796-1 for Decachlorobiphenyl: High percent recoveries and no positive found in the sample.
- JC15796-2 for Decachlorobiphenyl: High percent recoveries and no positive found in the sample.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JC15796
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 03/07/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC15796-1 S-29R

Chlorobenzene	0.34 J	1.0	0.19	ug/l	SW846 8260C
Isopropylbenzene	21.6	1.0	0.23	ug/l	SW846 8260C
Methyl Tert Butyl Ether	0.76 J	1.0	0.24	ug/l	SW846 8260C
Anthracene	16.7	1.0	0.25	ug/l	SW846 8270D
1,4-Dioxane	11.6	1.0	0.72	ug/l	SW846 8270D

JC15796-2 S-31R(2)

Benzene	4.4 J	5.0	2.4	ug/l	SW846 8260C
Ethylbenzene	4420	50	13	ug/l	SW846 8260C
Isopropylbenzene	57.3	10	2.3	ug/l	SW846 8260C
Methyl Tert Butyl Ether	5.9 J	10	2.4	ug/l	SW846 8260C
m,p-Xylene	5590	50	19	ug/l	SW846 8260C
Xylene (total)	5590	50	8.3	ug/l	SW846 8260C
2,4-Dimethylphenol ^a	14.5	5.0	1.3	ug/l	SW846 8270D
Acetophenone ^a	7.4	2.0	0.28	ug/l	SW846 8270D
Anthracene ^a	4.5	1.0	0.25	ug/l	SW846 8270D
Benzaldehyde ^a	2.0 J	5.0	0.34	ug/l	SW846 8270D
1,4-Dioxane ^a	19.7	1.0	0.72	ug/l	SW846 8270D

JC15796-3 EB030716

Isopropyl Alcohol	481	100	68	ug/l	SW846-8015C (DAI)
-------------------	-----	-----	----	------	-------------------

JC15796-4 TB030716

No hits reported in this sample.

(a) There is no sample left to reextract for low surrogates.

Sample Results

Report of Analysis

SGS Accutest

Report of Analysis

Page 1 of 2

Client Sample ID: S-29R	Date Sampled: 03/07/16
Lab Sample ID: JC15796-1	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: BSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A166320.D	1	03/11/16	TK	n/a	n/a	V2A7072
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.34	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	S-29R	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-1	Date Received:	03/09/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	21.6	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.76	1.0	0.24	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 3

Client Sample ID: S-29R	Date Sampled: 03/07/16
Lab Sample ID: JC15796-1	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: BSMC, Building 5 Area, PR	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P103301.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

Run #1	Initial Volume	Final Volume
Run #2	1000 ml	1.0 ml

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	16.7	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	S-29R	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-1	Date Received:	03/09/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
123-91-1	1,4-Dioxane	11.6	1.0	0.72	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: S-29R	Date Sampled: 03/07/16
Lab Sample ID: JC15796-1	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: BSMC, Building 5 Area, PR	

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-88%
4165-62-2	Phenol-d5	30%		10-110%
118-79-6	2,4,6-Tribromophenol	81%		39-149%
4165-60-0	Nitrobenzene-d5	66%		32-128%
321-60-8	2-Fluorobiphenyl	65%		35-119%
1718-51-0	Terphenyl-d14	64%		10-126%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID: S-29R	Date Sampled: 03/07/16
Lab Sample ID: JC15796-1	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D BY SIM SW846 3510C	
Project: BSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M64056.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
367-12-4	2-Fluorophenol	43%		14-81%		
4165-62-2	Phenol-d5	32%		11-54%		
118-79-6	2,4,6-Tribromophenol	112%		35-145%		
4165-60-0	Nitrobenzene-d5	78%		24-125%		
321-60-8	2-Fluorobiphenyl	66%		19-127%		
1718-51-0	Terphenyl-d14	67%		10-119%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID: S-29R	Date Sampled: 03/07/16
Lab Sample ID: JC15796-1	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846-8015C (DAI)	
Project: BSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103777.D	1	03/17/16	XPL	n/a	n/a	GGH5211
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	93%		56-145%
111-27-3	Hexanol	86%		56-145%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID: S-29R	Date Sampled: 03/07/16
Lab Sample ID: JC15796-1	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8081B SW846 3510C	
Project: BMSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G66284.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.010	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0049	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	123%		26-132%
877-09-8	Tetrachloro-m-xylene	119%		26-132%
2051-24-3	Decachlorobiphenyl	170% ^a		10-118%
2051-24-3	Decachlorobiphenyl	156% ^a		10-118%

(a) High percent recoveries and no positive found in the sample.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 2

Client Sample ID: S-31R(2)	Date Sampled: 03/07/16
Lab Sample ID: JC15796-2	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: BSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A166388.D	10	03/14/16	TK	n/a	n/a	V2A7074
Run #2	2A166321.D	50	03/11/16	TK	n/a	n/a	V2A7072

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	33	ug/l	
71-43-2	Benzene	4.4	5.0	2.4	ug/l	J
100-44-7	Benzyl Chloride	ND	50	2.1	ug/l	
74-97-5	Bromochloromethane	ND	10	3.7	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.3	ug/l	
75-25-2	Bromoform	ND	10	2.3	ug/l	
74-83-9	Bromomethane	ND	20	4.2	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	56	ug/l	
75-15-0	Carbon disulfide	ND	20	2.5	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.2	ug/l	
108-90-7	Chlorobenzene	ND	10	1.9	ug/l	
75-00-3	Chloroethane	ND	10	3.4	ug/l	
67-66-3	Chloroform	ND	10	1.9	ug/l	
74-87-3	Chloromethane	ND	10	4.1	ug/l	
110-82-7	Cyclohexane	ND	50	2.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	9.9	ug/l	
124-48-1	Dibromochloromethane	ND	10	1.5	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.3	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	2.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	2.7	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	9.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	1.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	1.8	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	5.1	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	10	2.7	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	6.5	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	3.9	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.1	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	1.9	ug/l	
100-41-4	Ethylbenzene	4420 ^a	50	13	ug/l	
76-13-1	Freon 113	ND	50	5.2	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	S-31R(2)	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-2	Date Received:	03/09/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	50	17	ug/l	
98-82-8	Isopropylbenzene	57.3	10	2.3	ug/l	
99-87-6	p-Isopropyltoluene	ND	20	2.1	ug/l	
79-20-9	Methyl Acetate	ND	50	19	ug/l	
108-87-2	Methylcyclohexane	ND	50	2.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.9	10	2.4	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	50	10	ug/l	
75-09-2	Methylene chloride	ND	20	7.3	ug/l	
100-42-5	Styrene	ND	10	2.7	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.1	ug/l	
127-18-4	Tetrachloroethene	ND	10	4.0	ug/l	
109-99-9	Tetrahydrofuran	ND	100	14	ug/l	
108-88-3	Toluene	ND	10	1.6	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10	2.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10	2.1	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.5	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.1	ug/l	
79-01-6	Trichloroethene	ND	10	2.2	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	4.3	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	20	2.2	ug/l	
75-01-4	Vinyl chloride	ND	10	1.5	ug/l	
	m,p-Xylene	5590 ^a	50	19	ug/l	
95-47-6	o-Xylene	ND	10	1.7	ug/l	
1330-20-7	Xylene (total)	5590 ^a	50	8.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	104%	73-122%
2037-26-5	Toluene-D8	101%	100%	84-119%
460-00-4	4-Bromofluorobenzene	97%	100%	78-117%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 3

Client Sample ID: S-31R(2)	Date Sampled: 03/07/16
Lab Sample ID: JC15796-2	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: BSMC, Building 5 Area, PR	

Run #1 ^a	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P103302.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

Run #1	Initial Volume	Final Volume
Run #2	1000 ml	1.0 ml

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	14.5	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	7.4	2.0	0.28	ug/l	
120-12-7	Anthracene	4.5	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	2.0	5.0	0.34	ug/l	J
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	S-31R(2)	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-2	Date Received:	03/09/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
123-91-1	1,4-Dioxane	19.7	1.0	0.72	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: S-31R(2)	Date Sampled: 03/07/16
Lab Sample ID: JC15796-2	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: BSMC, Building 5 Area, PR	

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	11% ^a		14-88%
4165-62-2	Phenol-d5	31%		10-110%
118-79-6	2,4,6-Tribromophenol	87%		39-149%
4165-60-0	Nitrobenzene-d5	65%		32-128%
321-60-8	2-Fluorobiphenyl	68%		35-119%
1718-51-0	Terphenyl-d14	70%		10-126%

(a) There is no sample left to reextract for low surrogates.

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.2
4

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID: S-31R(2)	Date Sampled: 03/07/16
Lab Sample ID: JC15796-2	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D BY SIM SW846 3510C	
Project: BMSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M64057.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
4165-60-0	Nitrobenzene-d5	79%		24-125%		
321-60-8	2-Fluorobiphenyl	70%		19-127%		
1718-51-0	Terphenyl-d14	74%		10-119%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID: S-31R(2)	Date Sampled: 03/07/16
Lab Sample ID: JC15796-2	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846-8015C (DAI)	
Project: BMSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103780.D	1	03/17/16	XPL	n/a	n/a	GGH5211
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	81%		56-145%
111-27-3	Hexanol	76%		56-145%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID: S-31R(2)	Date Sampled: 03/07/16
Lab Sample ID: JC15796-2	Date Received: 03/09/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8081B SW846 3510C	
Project: BSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G66285.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.010	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0049	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		26-132%
877-09-8	Tetrachloro-m-xylene	105%		26-132%
2051-24-3	Decachlorobiphenyl	115%		10-118%
2051-24-3	Decachlorobiphenyl	122% ^a		10-118%

(a) High percent recoveries and no positive found in the sample.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 2

Client Sample ID: EB030716	Date Sampled: 03/07/16
Lab Sample ID: JC15796-3	Date Received: 03/09/16
Matrix: AQ - Equipment Blank	Percent Solids: n/a
Method: SW846 8260C	
Project: BSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A166318.D	1	03/11/16	TK	n/a	n/a	V2A7072
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB030716	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-3	Date Received:	03/09/16
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 3

Client Sample ID: EB030716	Date Sampled: 03/07/16
Lab Sample ID: JC15796-3	Date Received: 03/09/16
Matrix: AQ - Equipment Blank	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: BSMC, Building 5 Area, PR	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P103303.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

Run #1	Initial Volume	Final Volume
Run #2	1000 ml	1.0 ml

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB030716	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-3	Date Received:	03/09/16
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		14-88%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EB030716	Date Sampled: 03/07/16
Lab Sample ID: JC15796-3	Date Received: 03/09/16
Matrix: AQ - Equipment Blank	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: BSMC, Building 5 Area, PR	

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	27%		10-110%
118-79-6	2,4,6-Tribromophenol	70%		39-149%
4165-60-0	Nitrobenzene-d5	63%		32-128%
321-60-8	2-Fluorobiphenyl	62%		35-119%
1718-51-0	Terphenyl-d14	70%		10-126%

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.3
4

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID:	EB030716	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-3	Date Received:	03/09/16
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8270D BY SIM SW846 3510C		
Project:	BMSMC, Building 5 Area, PR		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M64058.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		24-125%
321-60-8	2-Fluorobiphenyl	61%		19-127%
1718-51-0	Terphenyl-d14	81%		10-119%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID:	EB030716	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-3	Date Received:	03/09/16
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846-8015C (DAI)		
Project:	BMSMC, Building 5 Area, PR		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103786.D	1	03/17/16	XPL	n/a	n/a	GGH5211
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	481	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	90%		56-145%
111-27-3	Hexanol	86%		56-145%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID:	EB030716	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-3	Date Received:	03/09/16
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8081B SW846 3510C		
Project:	BMSMC, Building 5 Area, PR		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G66286.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.010	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0049	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		26-132%
877-09-8	Tetrachloro-m-xylene	116%		26-132%
2051-24-3	Decachlorobiphenyl	84%		10-118%
2051-24-3	Decachlorobiphenyl	89%		10-118%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 2

Client Sample ID: TB030716	Date Sampled: 03/07/16
Lab Sample ID: JC15796-4	Date Received: 03/09/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260C	
Project: BSMC, Building 5 Area, PR	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A166319.D	1	03/11/16	TK	n/a	n/a	V2A7072
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB030716	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-4	Date Received:	03/09/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Page 1 of 1

Client Sample ID:	TB030716	Date Sampled:	03/07/16
Lab Sample ID:	JC15796-4	Date Received:	03/09/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846-8015C (DAI)		
Project:	BMSMC, Building 5 Area, PR		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103787.D	1	03/17/16	XPL	n/a	n/a	GGH5211
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	103%		56-145%
111-27-3	Hexanol	95%		56-145%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms**Custody Documents and Other Forms**

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

GW
WEG
WTC

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

Fedex 8012 1953 5170

Accutest Job #: JC15796
Accutest Quote #:

Client Information		Facility Information		Analytical Information			
Anderson Mulholland & Associates		Anderson Mulholland and Associates Inc.					
2700 Westchester Avenue		Project Name					
Purchase NY 10577		Location					
City State Zip		Project/PO #:					
Terry Taylor		BMS: Building 5 Area					
Send Report to:		FAX #: 914-251-1286					
Phone #: 914-251-0400							

Field ID / Point of Collection	Collection		Sampled By	Matrix	# of bottles	Preservation						VOCs, 8260C	SVOC, 8270D	Volatile Alcohols, 8015B	Organo Pesticides, 8081B	SVOC, 8270D SIM	Comments / Remarks
	Date	Time				ICL	NOH	ENH	HS04	None							
1 S-29R	3/7/16	1114	NMR	GW	10	X						X	X	X	X	X	
S-29R MS		1125	NMR	GW	10	X					X	X	X	X	X	X	
S-29R MSD		1135	NMR	GW	10	X					X	X	X	X	X	X	
2 S-31R(2)		1428	NMR	GW	10	X					X	X	X	X	X	X	
3 EB030716	3/7/16	1651	NMR	WOWA	10	X					X	X	X	X	X	X	
			NMR	GW	10	X					X	X	X	X	X	X	
			NMR	GW	10	X					X	X	X	X	X	X	
			NMR	GW	10	X					X	X	X	X	X	X	
4 TB030716	3/7/16	1428	NMR	W	4	X					X	X	X	X	X	X	

Rec'd 2/25/16 in 10 bottles for BEST on 2/16/16

E90
V682

INITIAL ASSESSMENT LA
LABEL VERIFICATION NJ

Turnaround Information		Data Deliverable Information		Comments / Remarks	
<input checked="" type="checkbox"/> 21 Day Standard	Approved By:	<input type="checkbox"/> NJ Reduced	<input type="checkbox"/> Commercial "A"	Federal Express ID # 8012 1953 5170 Lab Trip Blank Date 2/27/16 Time 1000 SVOC Analysis by Method 8270D SIM for 1,4 Dioxane and Naphthalene only.	
<input type="checkbox"/> 14 Day		<input checked="" type="checkbox"/> NJ Full	<input type="checkbox"/> Commercial "B"		
<input type="checkbox"/> 7 Days EMERGENCY		<input type="checkbox"/> FULL CLP	<input type="checkbox"/> ASP Category B		
<input type="checkbox"/> Other (Days)		<input type="checkbox"/> Disk Deliverable	<input type="checkbox"/> State Forms		
<input type="checkbox"/> RUSH TAT is for FAX data unless previously approved.		<input type="checkbox"/> Other (Specify)			

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [Signature]	3/8/16 1043	1 [Signature]	2 [Signature]	3/9/16 1330	2 [Signature]
3		3	4		4
5		5	Seal # 152, 154, 156, 158	Preserved where applical	On Ice:

3.3, 4.0, 3.9 °C IP

5.1
5

SGS Accutest Sample Receipt Summary

Job Number: JC15796

Client: _____

Project: _____

Date / Time Received: 3/9/2016 3:30:00 PM

Delivery Method: _____

Airbill #s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.3); Cooler 2: (4.0); Cooler 3: (3.9);

Cooler Temps (Corrected) °C: Cooler 1: (3.7); Cooler 2: (4.4); Cooler 3: (4.3);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 3 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

JC15796: Chain of Custody

Page 2 of 3

5.1
5

Job Change Order: JC15796

Requested Date: 3/17/2016 Received Date: 3/9/2016
Account Name: Anderson, Mulholland & Associate Due Date: 3/23/2016
Project Description: BMSMC, Building 5 Area, PR Deliverable: FULT1
CSR: matthews TAT (Days): 14

=====
Sample #: JC15796-1 thru 3, 1S, 1D Change:
please add VMS+THF, VMS+IPTOLU, VMS+124TMB, VMS+BNZLCHL
AND BMS+MINAP

Dept:
TAT: 14

=====
Sample #: JC15796-4 Change:
please add VMS+THF, VMS+IPTOLU, VMS+124TMB, VMS+BNZLCHL

Dept:
TAT: 14

TB030716
=====

Above Changes Per: Terry Taylor

Date/Time: 3/17/2016 4:47:32 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the SGS Accutest Client Service Representative.

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC15796

BMSMC, Building 5 Area, PR
 Project No: SM04.00.06

5.2
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC15796-1 S-29R						
Collected: 07-MAR-16 11:14 By: NMR Received: 09-MAR-16 By: DDH						
JC15796-1	SW846 8260C	11-MAR-16 19:07	TK			V8260TCL20
JC15796-1	SW846 8270D	14-MAR-16 14:58	LK	12-MAR-16 FA		AB8270TCL20-14DX
JC15796-1	SW846 8270D BY SIM	14-MAR-16 17:04	LK	12-MAR-16 FA		BSIM+ NAP
JC15796-1	SW846-8015C (DAI)	17-MAR-16 11:48	XPL			D8015LMA
JC15796-1	SW846 8081B	20-MAR-16 12:37	BP	13-MAR-16 FA		P8081BETABHC,PGC+ 44DDD, PGC+ 44DDT
JC15796-2 S-31R(2)						
Collected: 07-MAR-16 14:28 By: NMR Received: 09-MAR-16 By: DDH						
JC15796-2	SW846 8260C	11-MAR-16 19:37	TK			V8260TCL20
JC15796-2	SW846 8270D	14-MAR-16 15:27	LK	12-MAR-16 FA		AB8270TCL20-14DX
JC15796-2	SW846 8260C	14-MAR-16 16:23	TK			V8260TCL20
JC15796-2	SW846 8270D BY SIM	14-MAR-16 17:34	LK	12-MAR-16 FA		BSIM+ NAP
JC15796-2	SW846-8015C (DAI)	17-MAR-16 12:32	XPL			D8015LMA
JC15796-2	SW846 8081B	20-MAR-16 12:52	BP	13-MAR-16 FA		P8081BETABHC,PGC+ 44DDD, PGC+ 44DDT
JC15796-3 EB030716						
Collected: 07-MAR-16 16:51 By: NMR Received: 09-MAR-16 By: DDH						
JC15796-3	SW846 8260C	11-MAR-16 18:07	TK			V8260TCL20
JC15796-3	SW846 8270D	14-MAR-16 15:55	LK	12-MAR-16 FA		AB8270TCL20-14DX
JC15796-3	SW846 8270D BY SIM	14-MAR-16 18:04	LK	12-MAR-16 FA		B8270SIM14DIOX,BSIM+ NAP
JC15796-3	SW846-8015C (DAI)	17-MAR-16 14:29	XPL			D8015LMA
JC15796-3	SW846 8081B	20-MAR-16 13:06	BP	13-MAR-16 FA		P8081BETABHC,PGC+ 44DDD, PGC+ 44DDT
JC15796-4 TB030716						
Collected: 07-MAR-16 16:51 By: NMR Received: 09-MAR-16 By: DDH						
JC15796-4	SW846 8260C	11-MAR-16 18:37	TK			V8260TCL20
JC15796-4	SW846-8015C (DAI)	17-MAR-16 14:44	XPL			D8015LMA

SGS Accutest Internal Chain of Custody

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR
 Received: 03/09/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15796-1.1	Secured Storage	Luis Villanueva	03/12/16 09:20	Retrieve from Storage
JC15796-1.1	Luis Villanueva	Secured Staging Area	03/12/16 09:20	Return to Storage
JC15796-1.1	Secured Staging Area	Folarin Adedeji	03/12/16 09:24	Retrieve from Storage
JC15796-1.1	Folarin Adedeji		03/12/16 17:43	Depleted
JC15796-1.1.1	Folarin Adedeji	Organics Prep	03/12/16 09:24	Extract from JC15796-1.1
JC15796-1.1.1	Organics Prep	Folarin Adedeji	03/12/16 17:42	Extract from JC15796-1.1
JC15796-1.1.1	Folarin Adedeji	Extract Storage	03/12/16 17:42	Return to Storage
JC15796-1.1.1	Extract Storage	Linsey Kirschmann	03/14/16 10:42	Retrieve from Storage
JC15796-1.1.1	Linsey Kirschmann	GCMSP	03/14/16 10:42	Load on Instrument
JC15796-1.1.1	GCMSP	Linsey Kirschmann	03/18/16 15:29	Unload from Instrument
JC15796-1.1.1	Linsey Kirschmann	Extract Freezer	03/18/16 15:29	Return to Storage
JC15796-1.2	Secured Storage	Luis Villanueva	03/12/16 09:20	Retrieve from Storage
JC15796-1.2	Luis Villanueva	Secured Staging Area	03/12/16 09:20	Return to Storage
JC15796-1.2	Secured Staging Area	Folarin Adedeji	03/12/16 09:24	Retrieve from Storage
JC15796-1.2	Folarin Adedeji		03/12/16 17:43	Depleted
JC15796-1.2.1	Folarin Adedeji	Organics Prep	03/12/16 09:24	Extract from JC15796-1.2
JC15796-1.2.1	Organics Prep	Folarin Adedeji	03/12/16 17:42	Extract from JC15796-1.2
JC15796-1.2.1	Folarin Adedeji	Extract Storage	03/12/16 17:42	Return to Storage
JC15796-1.3	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-1.3	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-1.3	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-1.3	Folarin Adedeji		03/13/16 16:45	Depleted
JC15796-1.3.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-1.3
JC15796-1.3.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-1.3
JC15796-1.3.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-1.3.1	Extract Storage	Brittany Piercy	03/20/16 11:36	Retrieve from Storage
JC15796-1.3.1	Brittany Piercy	GC4G	03/20/16 11:36	Load on Instrument
JC15796-1.3.1	GC4G	Brittany Piercy	03/21/16 16:53	Unload from Instrument
JC15796-1.3.1	Brittany Piercy	Extract Freezer	03/21/16 16:53	Return to Storage
JC15796-1.4	Secured Storage	Sahara Feliciano	03/12/16 08:08	Retrieve from Storage
JC15796-1.4	Sahara Feliciano	Secured Staging Area	03/12/16 08:08	Return to Storage
JC15796-1.4	Secured Staging Area	Folarin Adedeji	03/12/16 09:23	Retrieve from Storage
JC15796-1.4	Folarin Adedeji		03/12/16 17:43	Depleted
JC15796-1.4.1	Folarin Adedeji	Organics Prep	03/12/16 09:23	Extract from JC15796-1.4
JC15796-1.4.1	Organics Prep	Folarin Adedeji	03/12/16 17:42	Extract from JC15796-1.4
JC15796-1.4.1	Folarin Adedeji	Extract Storage	03/12/16 17:42	Return to Storage

5.3
5

SGS Accutest Internal Chain of Custody

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR
 Received: 03/09/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15796-1.5	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-1.5	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-1.5	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-1.5	Folarin Adedeji		03/13/16 16:45	Depleted
JC15796-1.5.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-1.5
JC15796-1.5.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-1.5
JC15796-1.5.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-1.6	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-1.6	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-1.6	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-1.6	Folarin Adedeji		03/13/16 16:45	Depleted
JC15796-1.6.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-1.6
JC15796-1.6.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-1.6
JC15796-1.6.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-1.7	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-1.7	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-1.7	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-1.7	Folarin Adedeji	Secured Storage	03/13/16 16:44	Return to Storage
JC15796-1.7.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-1.7
JC15796-1.7.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-1.7
JC15796-1.7.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-1.9	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-1.9	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-1.9	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-1.9	Folarin Adedeji	Secured Storage	03/13/16 16:44	Return to Storage
JC15796-1.9.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-1.9
JC15796-1.9.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-1.9
JC15796-1.9.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-1.11	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-1.11	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-1.11	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-1.11	Folarin Adedeji	Secured Storage	03/13/16 16:44	Return to Storage
JC15796-1.11.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-1.11
JC15796-1.11.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-1.11
JC15796-1.11.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage

5.3
5

SGS Accutest Internal Chain of Custody

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR
 Received: 03/09/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15796-1.12	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-1.12	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-1.12	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-1.12	Folarin Adedeji	Secured Storage	03/13/16 16:44	Return to Storage
JC15796-1.12.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-1.12
JC15796-1.12.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-1.12
JC15796-1.12.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-1.13	Secured Storage	Tracy Karpinski	03/11/16 16:22	Retrieve from Storage
JC15796-1.13	Tracy Karpinski	GCMS2A	03/11/16 16:22	Load on Instrument
JC15796-1.13	GCMS2A	Tracy Karpinski	03/14/16 09:07	Unload from Instrument
JC15796-1.13	Tracy Karpinski	Secured Storage	03/14/16 09:07	Return to Storage
JC15796-1.19	Secured Storage	Tracy Karpinski	03/11/16 16:22	Retrieve from Storage
JC15796-1.19	Tracy Karpinski	GCMS2A	03/11/16 16:22	Load on Instrument
JC15796-1.19	GCMS2A	Tracy Karpinski	03/14/16 09:07	Unload from Instrument
JC15796-1.19	Tracy Karpinski	Secured Storage	03/14/16 09:07	Return to Storage
JC15796-1.22	Secured Storage	Xu Liu	03/14/16 07:03	Retrieve from Storage
JC15796-1.22	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC15796-1.22	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC15796-1.22	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC15796-1.25	Secured Storage	Tracy Karpinski	03/11/16 16:22	Retrieve from Storage
JC15796-1.25	Tracy Karpinski	GCMS2A	03/11/16 16:22	Load on Instrument
JC15796-1.25	GCMS2A	Tracy Karpinski	03/14/16 09:07	Unload from Instrument
JC15796-1.25	Tracy Karpinski	Secured Storage	03/14/16 09:07	Return to Storage
JC15796-2.1	Secured Storage	Sahara Feliciano	03/12/16 08:08	Retrieve from Storage
JC15796-2.1	Sahara Feliciano	Secured Staging Area	03/12/16 08:08	Return to Storage
JC15796-2.1	Secured Staging Area	Folarin Adedeji	03/12/16 09:23	Retrieve from Storage
JC15796-2.1	Folarin Adedeji		03/12/16 17:43	Depleted
JC15796-2.1.1	Folarin Adedeji	Organics Prep	03/12/16 09:23	Extract from JC15796-2.1
JC15796-2.1.1	Organics Prep	Folarin Adedeji	03/12/16 17:42	Extract from JC15796-2.1
JC15796-2.1.1	Folarin Adedeji	Extract Storage	03/12/16 17:42	Return to Storage
JC15796-2.1.1	Extract Storage	Linsey Kirschmann	03/14/16 10:42	Retrieve from Storage
JC15796-2.1.1	Linsey Kirschmann	GCMSP	03/14/16 10:42	Load on Instrument
JC15796-2.1.1	GCMSP	Linsey Kirschmann	03/18/16 15:29	Unload from Instrument
JC15796-2.1.1	Linsey Kirschmann	Extract Freezer	03/18/16 15:29	Return to Storage
JC15796-2.2	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage

5.3
5

SGS Accutest Internal Chain of Custody

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR
 Received: 03/09/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15796-2.2	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-2.2	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-2.2	Folarin Adedeji		03/13/16 16:45	Depleted
JC15796-2.2.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-2.2
JC15796-2.2.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-2.2
JC15796-2.2.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-2.2.1	Extract Storage	Brittany Piercy	03/20/16 11:36	Retrieve from Storage
JC15796-2.2.1	Brittany Piercy	GC4G	03/20/16 11:36	Load on Instrument
JC15796-2.2.1	GC4G	Brittany Piercy	03/21/16 16:53	Unload from Instrument
JC15796-2.2.1	Brittany Piercy	Extract Freezer	03/21/16 16:53	Return to Storage
JC15796-2.5	Secured Storage	Tracy Karpinski	03/11/16 15:43	Retrieve from Storage
JC15796-2.5	Tracy Karpinski	Secured Storage	03/11/16 15:43	Return to Storage
JC15796-2.7	Secured Storage	Xu Liu	03/14/16 07:03	Retrieve from Storage
JC15796-2.7	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC15796-2.7	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC15796-2.7	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC15796-2.9	Secured Storage	Tracy Karpinski	03/14/16 12:00	Retrieve from Storage
JC15796-2.9	Tracy Karpinski	Secured Storage	03/14/16 12:00	Return to Storage
JC15796-3.1	Secured Storage	Sahara Feliciano	03/13/16 08:12	Retrieve from Storage
JC15796-3.1	Sahara Feliciano	Secured Staging Area	03/13/16 08:12	Return to Storage
JC15796-3.1	Secured Staging Area	Folarin Adedeji	03/13/16 11:11	Retrieve from Storage
JC15796-3.1	Folarin Adedeji		03/13/16 16:45	Depleted
JC15796-3.1.1	Folarin Adedeji	Organics Prep	03/13/16 11:11	Extract from JC15796-3.1
JC15796-3.1.1	Organics Prep	Folarin Adedeji	03/13/16 16:43	Extract from JC15796-3.1
JC15796-3.1.1	Folarin Adedeji	Extract Storage	03/13/16 16:43	Return to Storage
JC15796-3.1.1	Extract Storage	Brittany Piercy	03/20/16 11:36	Retrieve from Storage
JC15796-3.1.1	Brittany Piercy	GC4G	03/20/16 11:36	Load on Instrument
JC15796-3.1.1	GC4G	Brittany Piercy	03/21/16 16:53	Unload from Instrument
JC15796-3.1.1	Brittany Piercy	Extract Freezer	03/21/16 16:53	Return to Storage
JC15796-3.5	Secured Storage	Tracy Karpinski	03/11/16 16:22	Retrieve from Storage
JC15796-3.5	Tracy Karpinski	GCMS2A	03/11/16 16:22	Load on Instrument
JC15796-3.5	GCMS2A	Tracy Karpinski	03/14/16 09:07	Unload from Instrument
JC15796-3.5	Tracy Karpinski	Secured Storage	03/14/16 09:07	Return to Storage
JC15796-3.8	Secured Storage	Xu Liu	03/14/16 07:03	Retrieve from Storage
JC15796-3.8	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC15796-3.8	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage

5.3
5

SGS Accutest Internal Chain of Custody

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 03/09/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC15796-3.8	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC15796-3.9	Secured Storage	Sahara Feliciano	03/12/16 08:08	Retrieve from Storage
JC15796-3.9	Sahara Feliciano	Secured Staging Area	03/12/16 08:08	Return to Storage
JC15796-3.9	Secured Staging Area	Folarin Adedeji	03/12/16 09:23	Retrieve from Storage
JC15796-3.9	Folarin Adedeji		03/12/16 17:43	Depleted
JC15796-3.9.1	Folarin Adedeji	Organics Prep	03/12/16 09:23	Extract from JC15796-3.9
JC15796-3.9.1	Organics Prep	Folarin Adedeji	03/12/16 17:42	Extract from JC15796-3.9
JC15796-3.9.1	Folarin Adedeji	Extract Storage	03/12/16 17:42	Return to Storage
JC15796-3.9.1	Extract Storage	Linsey Kirschmann	03/14/16 10:42	Retrieve from Storage
JC15796-3.9.1	Linsey Kirschmann	GCMSP	03/14/16 10:42	Load on Instrument
JC15796-3.9.1	GCMSP	Linsey Kirschmann	03/18/16 15:29	Unload from Instrument
JC15796-3.9.1	Linsey Kirschmann	Extract Freezer	03/18/16 15:29	Return to Storage
JC15796-4.1	Secured Storage	Tracy Karpinski	03/11/16 16:22	Retrieve from Storage
JC15796-4.1	Tracy Karpinski	GCMS2A	03/11/16 16:22	Load on Instrument
JC15796-4.1	GCMS2A	Tracy Karpinski	03/14/16 09:07	Unload from Instrument
JC15796-4.1	Tracy Karpinski	Secured Storage	03/14/16 09:07	Return to Storage
JC15796-4.3	Secured Storage	Xu Liu	03/14/16 07:03	Retrieve from Storage
JC15796-4.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC15796-4.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC15796-4.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage

5.3
5

GC/MS Volatiles**QC Data Summaries****Includes the following where applicable:**

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7072-MB1	2A166306.D	1	03/11/16	TK	n/a	n/a	V2A7072

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7072-MB1	2A166306.D	1	03/11/16	TK	n/a	n/a	V2A7072

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	100%	73-122%
2037-26-5	Toluene-D8	97%	84-119%
460-00-4	4-Bromofluorobenzene	101%	78-117%

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7074-MB1	2A166377.D	1	03/14/16	TK	n/a	n/a	V2A7074

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7074-MB1	2A166377.D	1	03/14/16	TK	n/a	n/a	V2A7074

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-2

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	103%	76-120%
17060-07-0	1,2-Dichloroethane-D4	106%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	98%	78-117%

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7072-BS	2A166307.D	1	03/11/16	TK	n/a	n/a	V2A7072

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	46.7	93	47-144
71-43-2	Benzene	50	49.6	99	81-119
100-44-7	Benzyl Chloride	50	56.9	114	40-157
74-97-5	Bromochloromethane	50	49.8	100	84-120
75-27-4	Bromodichloromethane	50	49.9	100	81-125
75-25-2	Bromoform	50	52.8	106	74-128
74-83-9	Bromomethane	50	49.6	99	52-146
78-93-3	2-Butanone (MEK)	50	51.2	102	68-130
75-15-0	Carbon disulfide	50	47.6	95	71-129
56-23-5	Carbon tetrachloride	50	50.2	100	77-140
108-90-7	Chlorobenzene	50	50.6	101	84-116
75-00-3	Chloroethane	50	48.5	97	70-148
67-66-3	Chloroform	50	49.6	99	81-120
74-87-3	Chloromethane	50	44.7	89	50-143
110-82-7	Cyclohexane	50	50.8	102	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	51.1	102	66-132
124-48-1	Dibromochloromethane	50	50.7	101	81-122
106-93-4	1,2-Dibromoethane	50	51.3	103	81-120
95-50-1	1,2-Dichlorobenzene	50	50.5	101	80-117
541-73-1	1,3-Dichlorobenzene	50	49.1	98	81-116
106-46-7	1,4-Dichlorobenzene	50	49.9	100	80-115
75-71-8	Dichlorodifluoromethane	50	49.1	98	36-169
75-34-3	1,1-Dichloroethane	50	49.4	99	80-125
107-06-2	1,2-Dichloroethane	50	52.1	104	78-131
75-35-4	1,1-Dichloroethene	50	50.5	101	73-127
156-59-2	cis-1,2-Dichloroethene	50	47.0	94	77-118
156-60-5	trans-1,2-Dichloroethene	50	49.2	98	75-118
78-87-5	1,2-Dichloropropane	50	49.7	99	80-124
10061-01-5	cis-1,3-Dichloropropene	50	51.6	103	72-121
10061-02-6	trans-1,3-Dichloropropene	50	51.0	102	73-122
100-41-4	Ethylbenzene	50	49.4	99	80-118
76-13-1	Freon 113	50	50.2	100	76-140
591-78-6	2-Hexanone	50	53.8	108	66-128
98-82-8	Isopropylbenzene	50	49.7	99	78-125
99-87-6	p-Isopropyltoluene	50	50.4	101	81-124
79-20-9	Methyl Acetate	50	47.7	95	63-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7072-BS	2A166307.D	1	03/11/16	TK	n/a	n/a	V2A7072

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	46.9	94	69-132
1634-04-4	Methyl Tert Butyl Ether	100	100	100	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	52.6	105	73-129
75-09-2	Methylene chloride	50	48.6	97	75-122
100-42-5	Styrene	50	50.6	101	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	50.2	100	69-116
127-18-4	Tetrachloroethene	50	50.9	102	69-138
109-99-9	Tetrahydrofuran	50	51.1	102	56-132
108-88-3	Toluene	50	49.7	99	80-122
87-61-6	1,2,3-Trichlorobenzene	50	51.0	102	74-137
120-82-1	1,2,4-Trichlorobenzene	50	51.2	102	75-135
71-55-6	1,1,1-Trichloroethane	50	50.7	101	80-131
79-00-5	1,1,2-Trichloroethane	50	49.8	100	78-122
79-01-6	Trichloroethene	50	49.4	99	83-122
75-69-4	Trichlorofluoromethane	50	49.2	98	66-143
95-63-6	1,2,4-Trimethylbenzene	50	50.4	101	82-125
75-01-4	Vinyl chloride	50	46.9	94	57-138
	m,p-Xylene	100	101	101	82-119
95-47-6	o-Xylene	50	51.4	103	82-119
1330-20-7	Xylene (total)	150	152	101	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	104%	73-122%
2037-26-5	Toluene-D8	102%	84-119%
460-00-4	4-Bromofluorobenzene	100%	78-117%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7074-BS	2A166378.D	1	03/14/16	TK	n/a	n/a	V2A7074

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	45.0	90	47-144
71-43-2	Benzene	50	47.5	95	81-119
100-44-7	Benzyl Chloride	50	56.3	113	40-157
74-97-5	Bromochloromethane	50	49.9	100	84-120
75-27-4	Bromodichloromethane	50	48.7	97	81-125
75-25-2	Bromoform	50	52.3	105	74-128
74-83-9	Bromomethane	50	48.6	97	52-146
78-93-3	2-Butanone (MEK)	50	48.4	97	68-130
75-15-0	Carbon disulfide	50	44.2	88	71-129
56-23-5	Carbon tetrachloride	50	51.2	102	77-140
108-90-7	Chlorobenzene	50	49.9	100	84-116
75-00-3	Chloroethane	50	47.3	95	70-148
67-66-3	Chloroform	50	49.6	99	81-120
74-87-3	Chloromethane	50	46.7	93	50-143
110-82-7	Cyclohexane	50	50.5	101	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	51.0	102	66-132
124-48-1	Dibromochloromethane	50	50.7	101	81-122
106-93-4	1,2-Dibromoethane	50	49.4	99	81-120
95-50-1	1,2-Dichlorobenzene	50	50.4	101	80-117
541-73-1	1,3-Dichlorobenzene	50	48.7	97	81-116
106-46-7	1,4-Dichlorobenzene	50	49.1	98	80-115
75-71-8	Dichlorodifluoromethane	50	55.1	110	36-169
75-34-3	1,1-Dichloroethane	50	48.8	98	80-125
107-06-2	1,2-Dichloroethane	50	52.2	104	78-131
75-35-4	1,1-Dichloroethene	50	48.5	97	73-127
156-59-2	cis-1,2-Dichloroethene	50	45.9	92	77-118
156-60-5	trans-1,2-Dichloroethene	50	49.2	98	75-118
78-87-5	1,2-Dichloropropane	50	48.5	97	80-124
10061-01-5	cis-1,3-Dichloropropene	50	48.5	97	72-121
10061-02-6	trans-1,3-Dichloropropene	50	49.0	98	73-122
76-13-1	Freon 113	50	51.6	103	76-140
591-78-6	2-Hexanone	50	49.0	98	66-128
98-82-8	Isopropylbenzene	50	47.3	95	78-125
99-87-6	p-Isopropyltoluene	50	50.3	101	81-124
79-20-9	Methyl Acetate	50	46.0	92	63-120
108-87-2	Methylcyclohexane	50	48.9	98	69-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A7074-BS	2A166378.D	1	03/14/16	TK	n/a	n/a	V2A7074

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	100	98.1	98	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	48.9	98	73-129
75-09-2	Methylene chloride	50	46.6	93	75-122
100-42-5	Styrene	50	50.1	100	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	47.6	95	69-116
127-18-4	Tetrachloroethene	50	50.5	101	69-138
109-99-9	Tetrahydrofuran	50	49.5	99	56-132
108-88-3	Toluene	50	47.6	95	80-122
87-61-6	1,2,3-Trichlorobenzene	50	50.5	101	74-137
120-82-1	1,2,4-Trichlorobenzene	50	50.9	102	75-135
71-55-6	1,1,1-Trichloroethane	50	51.8	104	80-131
79-00-5	1,1,2-Trichloroethane	50	47.8	96	78-122
79-01-6	Trichloroethene	50	48.0	96	83-122
75-69-4	Trichlorofluoromethane	50	50.1	100	66-143
95-63-6	1,2,4-Trimethylbenzene	50	49.0	98	82-125
75-01-4	Vinyl chloride	50	46.8	94	57-138
95-47-6	o-Xylene	50	51.5	103	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	73-122%
2037-26-5	Toluene-D8	101%	84-119%
460-00-4	4-Bromofluorobenzene	96%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796

Account: AMANYWP Anderson, Mulholland & Associates

Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15796-1MS	2A166322.D	1	03/11/16	TK	n/a	n/a	V2A7072
JC15796-1MSD	2A166323.D	1	03/11/16	TK	n/a	n/a	V2A7072
JC15796-1	2A166320.D	1	03/11/16	TK	n/a	n/a	V2A7072

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	JC15796-1		MS	MS	Spike	MSD	MSD	RPD	Limits	
		ug/l	Q								ug/l
67-64-1	Acetone	ND		50	55.3	111	50	50.4	101	9	33-158/19
71-43-2	Benzene	ND		50	52.4	105	50	53.6	107	2	43-138/12
100-44-7	Benzyl Chloride	ND		50	49.1	98	50	49.3	99	0	48-155/17
74-97-5	Bromochloromethane	ND		50	52.2	104	50	53.5	107	2	75-127/12
75-27-4	Bromodichloromethane	ND		50	49.5	99	50	50.6	101	2	72-128/13
75-25-2	Bromoform	ND		50	45.1	90	50	47.2	94	5	70-131/12
74-83-9	Bromomethane	ND		50	50.1	100	50	53.7	107	7	47-142/16
78-93-3	2-Butanone (MEK)	ND		50	50.9	102	50	50.2	100	1	56-146/12
75-15-0	Carbon disulfide	ND		50	50.5	101	50	52.3	105	4	38-136/17
56-23-5	Carbon tetrachloride	ND		50	56.0	112	50	57.0	114	2	45-149/17
108-90-7	Chlorobenzene	0.34	J	50	53.1	106	50	54.3	108	2	70-124/12
75-00-3	Chloroethane	ND		50	49.9	100	50	53.3	107	7	47-139/15
67-66-3	Chloroform	ND		50	52.8	106	50	53.5	107	1	66-126/13
74-87-3	Chloromethane	ND		50	47.7	95	50	49.2	98	3	41-140/15
110-82-7	Cyclohexane	ND		50	58.4	117	50	58.2	116	0	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	50.3	101	50	52.7	105	5	64-136/14
124-48-1	Dibromochloromethane	ND		50	47.5	95	50	49.2	98	4	75-126/12
106-93-4	1,2-Dibromoethane	ND		50	50.8	102	50	53.2	106	5	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		50	52.0	104	50	52.5	105	1	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		50	51.2	102	50	51.8	104	1	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		50	51.7	103	50	52.3	105	1	69-122/12
75-71-8	Dichlorodifluoromethane	ND		50	55.4	111	50	56.3	113	2	24-161/20
75-34-3	1,1-Dichloroethane	ND		50	53.7	107	50	53.7	107	0	60-129/13
107-06-2	1,2-Dichloroethane	ND		50	53.9	108	50	54.4	109	1	72-133/12
75-35-4	1,1-Dichloroethene	ND		50	55.6	111	50	56.8	114	2	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		50	49.4	99	50	49.8	100	1	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		50	53.9	108	50	54.4	109	1	53-128/15
78-87-5	1,2-Dichloropropane	ND		50	51.1	102	50	52.7	105	3	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		50	51.5	103	50	52.8	106	2	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		50	50.6	101	50	51.0	102	1	68-130/14
100-41-4	Ethylbenzene	ND		50	53.1	106	50	54.0	108	2	38-139/12
76-13-1	Freon 113	ND		50	57.0	114	50	58.9	118	3	34-154/18
591-78-6	2-Hexanone	ND		50	51.6	103	50	53.3	107	3	55-148/15
98-82-8	Isopropylbenzene	21.6		50	73.8	104	50	74.8	106	1	54-137/15
99-87-6	p-Isopropyltoluene	ND		50	54.7	109	50	54.9	110	0	57-135/16
79-20-9	Methyl Acetate	ND		50	43.8	88	50	45.4	91	4	60-137/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15796-1MS	2A166322.D	1	03/11/16	TK	n/a	n/a	V2A7072
JC15796-1MSD	2A166323.D	1	03/11/16	TK	n/a	n/a	V2A7072
JC15796-1	2A166320.D	1	03/11/16	TK	n/a	n/a	V2A7072

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	JC15796-1		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q							
108-87-2	Methylcyclohexane	ND	50	53.3	107	50	56.4	113	6	30-152/17
1634-04-4	Methyl Tert Butyl Ether	0.76	J 100	101	100	100	104	103	3	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	50	50.2	100	50	52.6	105	5	68-139/12
75-09-2	Methylene chloride	ND	50	49.7	99	50	50.9	102	2	63-128/13
100-42-5	Styrene	ND	50	50.9	102	50	51.9	104	2	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	49.1	98	50	50.7	101	3	67-126/13
127-18-4	Tetrachloroethene	ND	50	55.2	110	50	56.5	113	2	43-145/15
109-99-9	Tetrahydrofuran	ND	50	47.0	94	50	48.5	97	3	49-135/14
108-88-3	Toluene	ND	50	52.0	104	50	53.1	106	2	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND	50	52.7	105	50	53.6	107	2	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND	50	52.5	105	50	53.4	107	2	65-138/15
71-55-6	1,1,1-Trichloroethane	ND	50	57.4	115	50	57.6	115	0	51-141/16
79-00-5	1,1,2-Trichloroethane	ND	50	49.5	99	50	50.9	102	3	71-127/12
79-01-6	Trichloroethene	ND	50	53.9	108	50	54.7	109	1	55-136/14
75-69-4	Trichlorofluoromethane	ND	50	55.2	110	50	57.3	115	4	33-157/21
95-63-6	1,2,4-Trimethylbenzene	ND	50	52.1	104	50	52.7	105	1	40-143/13
75-01-4	Vinyl chloride	ND	50	50.8	102	50	53.5	107	5	34-147/17
	m,p-Xylene	ND	100	107	107	100	110	110	3	42-139/13
95-47-6	o-Xylene	ND	50	54.1	108	50	55.1	110	2	56-134/13
1330-20-7	Xylene (total)	ND	150	161	107	150	165	110	2	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JC15796-1	Limits
1868-53-7	Dibromofluoromethane	101%	100%	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	105%	104%	104%	73-122%
2037-26-5	Toluene-D8	100%	99%	99%	84-119%
460-00-4	4-Bromofluorobenzene	99%	98%	99%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796

Account: AMANYWP Anderson, Mulholland & Associates

Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15990-9MS ^a	2A166389.D	25	03/14/16	TK	n/a	n/a	V2A7074
JC15990-9MSD ^a	2A166390.D	25	03/14/16	TK	n/a	n/a	V2A7074
JC15990-9 ^b	2A166385.D	25	03/14/16	TK	n/a	n/a	V2A7074

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-2

CAS No.	Compound	JC15990-9		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
67-64-1	Acetone	ND		1250	1390	111	1250	1400	112	1	33-158/19
71-43-2	Benzene	ND		1250	1250	100	1250	1240	99	1	43-138/12
100-44-7	Benzyl Chloride	ND		1250	1320	106	1250	1310	105	1	48-155/17
74-97-5	Bromochloromethane	ND		1250	1310	105	1250	1310	105	0	75-127/12
75-27-4	Bromodichloromethane	ND		1250	1280	102	1250	1270	102	1	72-128/13
75-25-2	Bromoform	ND		1250	1310	105	1250	1330	106	2	70-131/12
74-83-9	Bromomethane	ND		1250	1250	100	1250	1400	112	11	47-142/16
78-93-3	2-Butanone (MEK)	533		1250	1720	95	1250	1700	93	1	56-146/12
75-15-0	Carbon disulfide	ND		1250	1160	93	1250	1160	93	0	38-136/17
56-23-5	Carbon tetrachloride	ND		1250	1360	109	1250	1360	109	0	45-149/17
108-90-7	Chlorobenzene	ND		1250	1280	102	1250	1280	102	0	70-124/12
75-00-3	Chloroethane	ND		1250	1300	104	1250	1430	114	10	47-139/15
67-66-3	Chloroform	ND		1250	1310	105	1250	1310	105	0	66-126/13
74-87-3	Chloromethane	ND		1250	1460	117	1250	1490	119	2	41-140/15
110-82-7	Cyclohexane	ND		1250	1370	110	1250	1370	110	0	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		1250	1300	104	1250	1310	105	1	64-136/14
124-48-1	Dibromochloromethane	ND		1250	1270	102	1250	1310	105	3	75-126/12
106-93-4	1,2-Dibromoethane	ND		1250	1280	102	1250	1290	103	1	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		1250	1260	101	1250	1270	102	1	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		1250	1210	97	1250	1230	98	2	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		1250	1230	98	1250	1250	100	2	69-122/12
75-71-8	Dichlorodifluoromethane	ND		1250	1640	131	1250	1640	131	0	24-161/20
75-34-3	1,1-Dichloroethane	ND		1250	1310	105	1250	1300	104	1	60-129/13
107-06-2	1,2-Dichloroethane	ND		1250	1370	110	1250	1360	109	1	72-133/12
75-35-4	1,1-Dichloroethene	ND		1250	1290	103	1250	1310	105	2	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		1250	1210	97	1250	1200	96	1	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		1250	1310	105	1250	1300	104	1	53-128/15
78-87-5	1,2-Dichloropropane	ND		1250	1260	101	1250	1260	101	0	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1280	102	1250	1290	103	1	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1300	104	1250	1290	103	1	68-130/14
76-13-1	Freon 113	ND		1250	1150	92	1250	1200	96	4	34-154/18
591-78-6	2-Hexanone	ND		1250	1470	118	1250	1470	118	0	55-148/15
98-82-8	Isopropylbenzene	ND		1250	1190	95	1250	1210	97	2	54-137/15
99-87-6	p-Isopropyltoluene	ND		1250	1270	102	1250	1280	102	1	57-135/16
79-20-9	Methyl Acetate	ND		1250	1040	83	1250	1080	86	4	60-137/13
108-87-2	Methylcyclohexane	ND		1250	1120	90	1250	1120	90	0	30-152/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15990-9MS ^a	2A166389.D	25	03/14/16	TK	n/a	n/a	V2A7074
JC15990-9MSD ^a	2A166390.D	25	03/14/16	TK	n/a	n/a	V2A7074
JC15990-9 ^b	2A166385.D	25	03/14/16	TK	n/a	n/a	V2A7074

The QC reported here applies to the following samples:

Method: SW846 8260C

JC15796-2

CAS No.	Compound	JC15990-9 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND	2500	2510	100	2500	2480	99	1	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	1250	1440	115	1250	1450	116	1	68-139/12
75-09-2	Methylene chloride	ND	1250	1250	100	1250	1240	99	1	63-128/13
100-42-5	Styrene	ND	1250	1280	102	1250	1280	102	0	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND	1250	1190	95	1250	1220	98	2	67-126/13
127-18-4	Tetrachloroethene	ND	1250	1290	103	1250	1290	103	0	43-145/15
109-99-9	Tetrahydrofuran	ND	1250	1320	106	1250	1340	107	2	49-135/14
108-88-3	Toluene	ND	1250	1240	99	1250	1240	99	0	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND	1250	1260	101	1250	1290	103	2	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND	1250	1250	100	1250	1280	102	2	65-138/15
71-55-6	1,1,1-Trichloroethane	ND	1250	1400	112	1250	1380	110	1	51-141/16
79-00-5	1,1,2-Trichloroethane	ND	1250	1250	100	1250	1260	101	1	71-127/12
79-01-6	Trichloroethene	ND	1250	1270	102	1250	1250	100	2	55-136/14
75-69-4	Trichlorofluoromethane	ND	1250	1380	110	1250	1470	118	6	33-157/21
95-63-6	1,2,4-Trimethylbenzene	ND	1250	1230	98	1250	1260	101	2	40-143/13
75-01-4	Vinyl chloride	ND	1250	1430	114	1250	1510	121	5	34-147/17
95-47-6	o-Xylene	ND	1250	1330	106	1250	1310	105	2	56-134/13

CAS No.	Surrogate Recoveries	MS	MSD	JC15990-9	Limits
1868-53-7	Dibromofluoromethane	104%	103%	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	109%	109%	107%	73-122%
2037-26-5	Toluene-D8	101%	100%	99%	84-119%
460-00-4	4-Bromofluorobenzene	94%	97%	98%	78-117%

(a) (pH= 5)Sample pH did not satisfy field preservation criteria.

(b) (pH= 5)Sample pH did not satisfy field preservation criteria. Dilution required due to high concentration of non-target compound.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7071-BFB	Injection Date: 03/10/16
Lab File ID: 2A166287.D	Injection Time: 18:24
Instrument ID: GCMS2A	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	13554	16.9	Pass
75	30.0 - 60.0% of mass 95	35610	44.5	Pass
95	Base peak, 100% relative abundance	80037	100.0	Pass
96	5.0 - 9.0% of mass 95	5394	6.74	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	73122	91.4	Pass
175	5.0 - 9.0% of mass 174	5813	7.26 (7.95) ^a	Pass
176	95.0 - 101.0% of mass 174	73096	91.3 (100.0) ^a	Pass
177	5.0 - 9.0% of mass 176	4746	5.93 (6.49) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A7071-IC7071	2A166288.D	03/10/16	19:00	00:36	Initial cal 1
V2A7071-IC7071	2A166289.D	03/10/16	19:29	01:05	Initial cal 0.5
V2A7071-IC7071	2A166291.D	03/10/16	20:28	02:04	Initial cal 2
V2A7071-IC7071	2A166292.D	03/10/16	20:58	02:34	Initial cal 5
V2A7071-IC7071	2A166293.D	03/10/16	21:27	03:03	Initial cal 10
V2A7071-IC7071	2A166294.D	03/10/16	21:56	03:32	Initial cal 20
V2A7071-ICC7071	2A166295.D	03/10/16	22:26	04:02	Initial cal 50
V2A7071-IC7071	2A166296.D	03/10/16	22:55	04:31	Initial cal 100
V2A7071-IC7071	2A166297.D	03/10/16	23:24	05:00	Initial cal 200
V2A7071-ICV7071	2A166300.D	03/11/16	00:52	06:28	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	V2A7072-BFB	Injection Date:	03/11/16
Lab File ID:	2A166303.D	Injection Time:	10:25
Instrument ID:	GCMS2A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	13821	17.5	Pass
75	30.0 - 60.0% of mass 95	35965	45.5	Pass
95	Base peak, 100% relative abundance	79048	100.0	Pass
96	5.0 - 9.0% of mass 95	5203	6.58	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	70611	89.3	Pass
175	5.0 - 9.0% of mass 174	5698	7.21 (8.07) ^a	Pass
176	95.0 - 101.0% of mass 174	70744	89.5 (100.2) ^a	Pass
177	5.0 - 9.0% of mass 176	4703	5.95 (6.65) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A7072-CC7071	2A166304.D	03/11/16	10:59	00:34	Continuing cal 20
V2A7072-MB1	2A166306.D	03/11/16	12:06	01:41	Method Blank
V2A7072-BS	2A166307.D	03/11/16	12:35	02:10	Blank Spike
JC15693-3	2A166309.D	03/11/16	13:38	03:13	(used for QC only; not part of job JC15796)
ZZZZZZ	2A166310.D	03/11/16	14:08	03:43	(unrelated sample)
ZZZZZZ	2A166311.D	03/11/16	14:38	04:13	(unrelated sample)
JC15693-3MS	2A166312.D	03/11/16	15:08	04:43	Matrix Spike
JC15693-3MSD	2A166313.D	03/11/16	15:37	05:12	Matrix Spike Duplicate
ZZZZZZ	2A166315.D	03/11/16	16:37	06:12	(unrelated sample)
ZZZZZZ	2A166316.D	03/11/16	17:07	06:42	(unrelated sample)
ZZZZZZ	2A166317.D	03/11/16	17:37	07:12	(unrelated sample)
JC15796-3	2A166318.D	03/11/16	18:07	07:42	EB030716
JC15796-4	2A166319.D	03/11/16	18:37	08:12	TB030716
JC15796-1	2A166320.D	03/11/16	19:07	08:42	S-29R
JC15796-2	2A166321.D	03/11/16	19:37	09:12	S-31R(2)
JC15796-1MS	2A166322.D	03/11/16	20:06	09:41	Matrix Spike
JC15796-1MSD	2A166323.D	03/11/16	20:36	10:11	Matrix Spike Duplicate
V2A7072-ECC7071	2A166325.D	03/11/16	21:35	11:10	Ending cal 20

Instrument Performance Check (BFB)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7074-BFB	Injection Date: 03/14/16
Lab File ID: 2A166374.D	Injection Time: 09:17
Instrument ID: GCMS2A	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14999	18.0	Pass
75	30.0 - 60.0% of mass 95	38939	46.8	Pass
95	Base peak, 100% relative abundance	83245	100.0	Pass
96	5.0 - 9.0% of mass 95	5537	6.65	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	75875	91.1	Pass
175	5.0 - 9.0% of mass 174	6093	7.32 (8.03) ^a	Pass
176	95.0 - 101.0% of mass 174	73117	87.8 (96.4) ^a	Pass
177	5.0 - 9.0% of mass 176	4683	5.63 (6.40) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A7074-CC7071	2A166375.D	03/14/16	09:55	00:38	Continuing cal 20
V2A7074-MB1	2A166377.D	03/14/16	10:58	01:41	Method Blank
V2A7074-BS	2A166378.D	03/14/16	11:27	02:10	Blank Spike
ZZZZZZ	2A166380.D	03/14/16	12:26	03:09	(unrelated sample)
ZZZZZZ	2A166381.D	03/14/16	12:56	03:39	(unrelated sample)
ZZZZZZ	2A166382.D	03/14/16	13:25	04:08	(unrelated sample)
JC15990-9	2A166385.D	03/14/16	14:54	05:37	(used for QC only; not part of job JC15796)
JC15796-2	2A166388.D	03/14/16	16:23	07:06	S-31R(2)
JC15990-9MS	2A166389.D	03/14/16	16:52	07:35	Matrix Spike
JC15990-9MSD	2A166390.D	03/14/16	17:22	08:05	Matrix Spike Duplicate
ZZZZZZ	2A166393.D	03/14/16	18:50	09:33	(unrelated sample)
ZZZZZZ	2A166394.D	03/14/16	19:20	10:03	(unrelated sample)
ZZZZZZ	2A166395.D	03/14/16	19:49	10:32	(unrelated sample)
ZZZZZZ	2A166396.D	03/14/16	20:19	11:02	(unrelated sample)
ZZZZZZ	2A166397.D	03/14/16	20:48	11:31	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	V2A7072-CC7071	Injection Date:	03/11/16
Lab File ID:	2A166304.D	Injection Time:	10:59
Instrument ID:	GCMS2A	Method:	SW846 8260C

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	99933	8.33	234074	10.75	340488	11.68	288930	14.67	153268	16.82
Upper Limit ^a	199866	8.83	468148	11.25	680976	12.18	577860	15.17	306536	17.32
Lower Limit ^b	49967	7.83	117037	10.25	170244	11.18	144465	14.17	76634	16.32

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
V2A7072-MB1	102724	8.33	226577	10.75	324808	11.68	265556	14.66	139812	16.82
V2A7072-BS	86833	8.32	206950	10.75	298632	11.67	255059	14.66	136804	16.82
JC15693-3	103497	8.32	222077	10.75	318316	11.67	259781	14.66	139794	16.82
ZZZZZZ	94362	8.33	217536	10.75	307209	11.67	254321	14.66	135438	16.82
ZZZZZZ	101700	8.32	225592	10.75	322945	11.67	268195	14.66	143314	16.82
JC15693-3MS	96616	8.33	227456	10.75	325864	11.67	275411	14.66	149564	16.82
JC15693-3MSD	103636	8.33	237243	10.75	342130	11.67	287719	14.66	154744	16.82
ZZZZZZ	88039	8.33	239337	10.75	343557	11.67	283360	14.66	152062	16.82
ZZZZZZ	98300	8.32	236188	10.75	337206	11.67	281157	14.66	151083	16.82
ZZZZZZ	105446	8.33	236497	10.75	339350	11.67	282096	14.66	150913	16.82
JC15796-3	99698	8.32	232739	10.75	331326	11.67	276195	14.66	149332	16.82
JC15796-4	102136	8.33	228691	10.75	326206	11.67	275493	14.66	147616	16.82
JC15796-1	83996	8.33	222380	10.75	319415	11.67	266404	14.66	143212	16.82
JC15796-2	95298	8.32	221482	10.74	316038	11.67	264081	14.66	142904	16.82
JC15796-1MS	87379	8.33	226849	10.75	330870	11.67	277758	14.66	152131	16.82
JC15796-1MSD	93737	8.33	231568	10.75	334695	11.67	278023	14.66	154075	16.82
V2A7072-ECC707	99764	8.33	237184	10.75	339965	11.67	284466	14.66	154376	16.82

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	V2A7074-CC7071	Injection Date:	03/14/16
Lab File ID:	2A166375.D	Injection Time:	09:55
Instrument ID:	GCMS2A	Method:	SW846 8260C

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	96238	8.32	237779	10.75	341906	11.67	285325	14.66	164410	16.82
Upper Limit ^a	192476	8.82	475558	11.25	683812	12.17	570650	15.16	328820	17.32
Lower Limit ^b	48119	7.82	118890	10.25	170953	11.17	142663	14.16	82205	16.32

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
V2A7074-MB1	86430	8.32	236114	10.75	339893	11.67	283182	14.66	155099	16.82
V2A7074-BS	89379	8.33	232736	10.74	338480	11.67	283170	14.66	162023	16.82
ZZZZZZ	107754	8.33	237857	10.75	340918	11.67	283326	14.66	154745	16.82
ZZZZZZ	106153	8.33	245822	10.75	359528	11.67	303252	14.66	167930	16.82
ZZZZZZ	109056	8.33	238111	10.75	345756	11.67	285722	14.66	159646	16.82
JC15990-9	75775	8.32	182274	10.75	263601	11.67	219994	14.66	119947	16.82
JC15796-2	88247	8.32	238728	10.74	342539	11.67	285003	14.66	160812	16.82
JC15990-9MS ^c	92335	8.32	227322	10.75	332795	11.67	281305	14.66	165224	16.82
JC15990-9MSD ^c	93774	8.33	236592	10.75	346035	11.67	291171	14.66	166816	16.82
ZZZZZZ	84959	8.32	215012	10.74	308037	11.67	257483	14.66	140942	16.82
ZZZZZZ	91883	8.33	233765	10.75	333809	11.67	277001	14.66	152083	16.82
ZZZZZZ	83443	8.32	228363	10.75	328615	11.67	274586	14.66	149540	16.82
ZZZZZZ	95361	8.32	223768	10.74	318347	11.67	267140	14.66	146764	16.82
ZZZZZZ	92371	8.32	205328	10.74	293228	11.67	248266	14.66	138991	16.82

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
 (c) (pH= 5)Sample pH did not satisfy field preservation criteria.

Volatile Surrogate Recovery Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Method: SW846 8260C	Matrix: AQ
---------------------	------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC15796-1	2A166320.D	100	104	99	99
JC15796-2	2A166321.D	100	104	100	100
JC15796-2	2A166388.D	103	107	101	97
JC15796-3	2A166318.D	100	103	99	99
JC15796-4	2A166319.D	101	104	100	100
JC15796-1MS	2A166322.D	101	105	100	99
JC15796-1MSD	2A166323.D	100	104	99	98
JC15990-9MS	2A166389.D	104	109	101	94
JC15990-9MSD	2A166390.D	103	109	100	97
V2A7072-BS	2A166307.D	100	104	102	100
V2A7072-MB1	2A166306.D	99	100	97	101
V2A7074-BS	2A166378.D	103	107	101	96
V2A7074-MB1	2A166377.D	103	106	100	98

Surrogate Compounds	Recovery Limits
---------------------	-----------------

S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7071-ICC7071
 Lab FileID: 2A166295.D

Response Factor Report Instrumen

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

Calibration Files

1 =2A166288.D 2 =2A166291.D 100 =2A166296.D 50 =2A166295.D
 20 =2A166294.D 200 =2A166297.D 5 =2A166292.D 0.5 =2A166289.D
 10 =2A166293.D =

Compound	1	2	100	50	20	200	5	0.5	10	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----											
2) tertiary butyl alcohol	1.683	1.654	1.672	1.783	1.892	1.403	1.760		1.860	1.713	8.90
3) Ethanol	0.092	0.147	0.084	0.093	0.104	0.073	0.109		0.108	0.101	21.96
----- Linear regression ----- Coefficient = 0.9929											
Response Ratio = 0.08241 + 0.07324 *A											
4) 1,4-dioxane			0.102	0.095	0.095	0.095	0.078		0.096	0.094	8.80
5) I pentafluorobenzene -----ISTD-----											
6) FREON 143A										0.000#	-1.00
7) chlorodifluoromethane			0.620	0.631	0.645	0.608	0.646		0.639	0.632	2.38
8) dichlorodifluoromethane			0.544	0.497	0.510	0.517	0.479	0.493	0.480	0.503	4.57
9) FREON 142B										0.000#	-1.00
10) chloromethane	0.851	0.874	0.802	0.820	0.841	0.789	0.821		0.813	0.826	3.34
11) vinyl chloride	0.633	0.722	0.741	0.746	0.761	0.724	0.712		0.734	0.721	5.41
12) bromomethane	0.487	0.407	0.424	0.441	0.392	0.414			0.424	0.427	7.19
13) chloroethane	0.357	0.431	0.408	0.403	0.406	0.390	0.401		0.394	0.399	5.26
14) trichlorofluoromethane	0.653	0.735	0.741	0.714	0.713	0.629			0.660	0.692	6.38
15) PENTANE										0.000#	-1.00
16) ethyl ether	0.317	0.282	0.287	0.281	0.282	0.291			0.277	0.288	4.69
17) FREON 141B										0.000#	-1.00
18) acrolein			0.115	0.116	0.117	0.109	0.116		0.120	0.115	3.03
19) 1,1-dichloroethene	0.764	0.812	0.769	0.773	0.732	0.746	0.752		0.723	0.759	3.66
20) acetone			0.132	0.142	0.153	0.143			0.169	0.148	9.54
21) allyl chloride			0.325	0.319	0.311	0.324	0.304		0.297	0.313	3.64

6.7.1
6

Initial Calibration Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BSMSC, Building 5 Area, PR

Sample: V2A7071-ICC7071
Lab FileID: 2A166295.D

22)	acetonitrile	0.040	0.042	0.045	0.039	0.045	0.051	0.044	9.52			
23)	iodomethane	0.914	0.916	0.907	0.900	0.902	0.868	0.870	0.897	2.21		
24)	iso-butyl alcohol	0.017	0.017	0.017	0.017	0.016	0.018	0.016	0.017	2.94		
25)	carbon disulfide	1.818	1.702	1.696	1.650	1.663	1.668	1.615	1.687	3.82		
26)	methylene chloride	0.604	0.561	0.557	0.561	0.555	0.557	0.555	0.564	3.15		
27)	methyl acetate	0.079	0.080	0.079	0.077	0.071		0.077	0.077	4.23		
28)	methyl tert butyl ether	1.370	1.602	1.428	1.423	1.461	1.416	1.420	1.428	1.444	4.74	
29)	trans-1,2-dichloroethene	0.712	0.795	0.760	0.766	0.747	0.745	0.760	0.743	0.740	0.752	3.00
30)	di-isopropyl ether	1.959	1.976	1.920	1.936	1.950	1.863	1.910	1.943	1.932	1.80	
31)	2-butanone	0.052	0.053	0.055	0.052			0.057	0.054	3.81		
32)	1,1-dichloroethane	0.949	1.059	0.969	0.979	0.967	0.956	0.974	0.960	0.977	3.54	
33)	chloroprene	0.785	0.799	0.785	0.792	0.774	0.761	0.787	0.770	0.774	0.781	1.52
34)	acrylonitrile	0.179	0.196	0.177	0.181	0.182	0.174	0.181	0.178	0.181	3.71	
35)	vinyl acetate	0.090	0.088	0.085	0.090			0.085	0.088	3.10		
36)	ethyl tert-butyl ether	1.578	1.670	1.689	1.694	1.700	1.653	1.617	1.688	1.661	2.60	
37)	ethyl acetate	0.066	0.068	0.071	0.065	0.074		0.071	0.069	4.88		
38)	2,2-dichloropropane	0.786	0.830	0.706	0.728	0.723	0.681	0.757	0.722	0.741	6.43	
39)	cis-1,2-dichloroethene	0.638	0.717	0.599	0.605	0.604	0.596	0.624	0.591	0.622	6.66	
40)	methylacrylate	0.070	0.072	0.068	0.071	0.069		0.069	0.070	2.17		
41)	propionitrile	0.065	0.067	0.067	0.065	0.067		0.067	0.066	1.75		
42)	bromochloromethane	0.238	0.310	0.287	0.287	0.280	0.285	0.276	0.274	0.280	7.22	
43)	tetrahydrofuran	0.158	0.160	0.166	0.154			0.168	0.161	3.65		
44)	chloroform	0.622	0.689	0.594	0.596	0.596	0.585	0.597	0.587	0.608	5.69	
45)	t-butyl formate	**This compound does not meet initial calibration criteria										
		0.334	0.311	0.298	0.355	0.274		0.293	0.311	9.44		
46)	dibromofluoromethane (s)	0.440	0.445	0.445	0.441	0.446	0.442	0.440	0.445	0.436	0.442	0.72
47)	1,2-dichloroethane-d4 (s)	0.440	0.458	0.458	0.458	0.462	0.462	0.455	0.451	0.455	0.455	1.51
48)	freon 113	0.337	0.350	0.343	0.330	0.330		0.323	0.335	2.90		
49)	methacrylonitrile	0.299	0.310	0.309	0.300			0.323	0.308	3.03		
50)	1,1,1-trichloroethane	0.713	0.811	0.739	0.738	0.721	0.726	0.722	0.713	0.735	4.39	
51)	Cyclohexane	0.739	0.751	0.699	0.717	0.723		0.672	0.717	3.96		

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: V2A7071-ICC7071
 Lab FileID: 2A166295.D

52) I	1,4-difluorobenzene	-----ISTD-----										
53)	epichlorohydrin	0.024	0.025	0.024	0.024	0.025	0.025	0.025	2.45			
54)	n-butyl alcohol	0.008	0.009	0.009	0.008	0.009	0.009	0.009#	7.32			
55)	carbon tetrachloride	0.468	0.507	0.473	0.478	0.460	0.462	0.470	0.464	0.472	3.20	
56)	1,1-dichloropropene	0.460	0.511	0.474	0.484	0.456	0.471	0.484	0.458	0.475	3.88	
57)	hexane	0.462	0.486	0.462	0.426	0.518	0.451	0.468	6.69			
58)	TERT AMYL ALCOHOL	0.015	0.017	0.018	0.014	0.018	0.018	0.017	10.46			
59)	2,2,4-TRIMETHYLPENTANE	1.221	1.289	1.241	1.113	1.279	1.165	1.218	5.58			
60)	benzene	1.412	1.568	1.432	1.453	1.425	1.415	1.455	1.528	1.423	1.457	3.75
61)	tert-amyl methyl ether	0.224	0.226	0.228	0.231	0.221	0.212	0.230	0.225	2.83		
62)	heptane	0.246	0.263	0.248	0.229	0.276	0.246	0.251	6.41			
63)	isopropyl acetate	0.843	0.870	0.859	0.797	0.841	0.824	0.839	3.10			
64)	1,2-dichloroethane	0.401	0.481	0.431	0.440	0.439	0.426	0.452	0.437	0.438	5.12	
65)	Ethyl Acrylate							0.000#	-1.00			
66)	trichloroethene	0.372	0.373	0.366	0.368	0.354	0.363	0.368	0.353	0.355	0.364	2.17
67)	TERT-AMYL ETHYL ETHER							0.000#	-1.00			
68)	methyl methacrylate	0.081	0.080	0.081	0.079	0.081	0.078	0.078	0.080	1.80		
69)	2-nitropropane	0.071	0.074	0.075	0.072		0.076	0.074	2.61			
70)	2-chloroethyl vinyl ether	0.043	0.048	0.046	0.043	0.052	0.042	0.043	0.045	8.15		
71)	1,2-dichloropropane	0.353	0.409	0.388	0.392	0.387	0.386	0.397	0.384	0.387	4.11	
72)	dibromomethane	0.193	0.227	0.213	0.217	0.213	0.214	0.211	0.178	0.214	0.209	6.96
73)	methylcyclohexane	0.566	0.580	0.553	0.559	0.546	0.524	0.554	0.530	0.522	0.548	3.61
74)	bromodichloromethane	0.471	0.508	0.480	0.482	0.477	0.481	0.473	0.518	0.466	0.484	3.58
75)	cis-1,3-dichloropropene	0.549	0.631	0.608	0.615	0.599	0.609	0.599	0.584	0.598	0.599	3.83
76)	toluene-d8 (s)	1.069	1.083	1.092	1.094	1.099	1.087	1.089	1.073	1.095	1.087	0.96
77)	4-methyl-2-pentanone	0.117	0.114	0.120	0.119	0.112	0.120	0.119	0.117	2.52		
78)	toluene	0.800	0.876	0.834	0.845	0.814	0.833	0.843	0.916	0.812	0.841	4.25
79)	3-methyl-1-butanol	0.017	0.012	0.013	0.014	0.011	0.014	0.015	0.014	13.07		
80)	trans-1,3-dichloropropene	0.494	0.559	0.528	0.535	0.521	0.523	0.524	0.525	0.528	0.526	3.15
81)	ethyl methacrylate	0.373	0.432	0.400	0.405	0.396	0.399	0.400	0.393	0.400	4.08	

Initial Calibration Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BSMC, Building 5 Area, PR

Sample: V2A7071-ICC7071
Lab FileID: 2A166295.D

82)	1,1,2-trichloroethane	0.255	0.263	0.254	0.258	0.253	0.255	0.260	0.265	0.254	0.258	1.67
83)	2-hexanone	0.100	0.104	0.102	0.099	0.107		0.108	0.103			3.38
84)	I chlorobenzene-d5	-----ISTD-----										
85)	tetrachloroethene	0.338	0.378	0.361	0.362	0.345	0.355	0.363	0.334	0.343	0.353	4.01
86)	1,3-dichloropropane	0.514	0.611	0.578	0.588	0.570	0.575	0.579	0.564	0.568	0.572	4.51
87)	butyl acetate	0.212	0.218	0.215	0.219	0.219	0.209	0.216	0.223	0.217		2.02
88)	3,3-dimethyl-1-butanol	0.038	0.029	0.033	0.035	0.028	0.035		0.035	0.033		11.02
89)	dibromochloromethane	0.388	0.462	0.438	0.439	0.421	0.438	0.412	0.416	0.427		5.27
90)	1,2-dibromoethane	0.307	0.379	0.362	0.365	0.359	0.359	0.361	0.361	0.357		5.88
91)	chlorobenzene	1.052	1.142	1.105	1.110	1.080	1.100	1.092	1.099	1.090	1.097	2.21
92)	1,1,1,2-tetrachloroethane	0.409	0.437	0.429	0.428	0.427	0.428	0.425	0.399	0.426	0.423	2.72
93)	ethylbenzene	1.778	1.962	1.833	1.856	1.789	1.805	1.863	1.918	1.813	1.846	3.30
94)	m,p-xylene	0.669	0.733	0.704	0.707	0.677	0.703	0.704	0.680	0.687	0.696	2.82
95)	o-xylene	0.653	0.728	0.706	0.705	0.681	0.703	0.690	0.717	0.685	0.696	3.19
96)	styrene	1.126	1.273	1.204	1.220	1.181	1.191	1.199	1.170	1.181	1.194	3.33
97)	bromoform	0.243	0.298	0.304	0.302	0.291	0.302	0.285	0.285	0.289		6.90
98)	I 1,4-dichlorobenzene-d	-----ISTD-----										
99)	isopropylbenzene	3.188	3.554	3.446	3.424	3.264	3.412	3.361	3.359	3.258	3.363	3.34
100)	4-bromofluorobenzene (s)	0.878	0.872	0.889	0.876	0.877	0.878	0.888	0.877	0.874	0.879	0.66
101)	cyclohexanone	0.009	0.010	0.010	0.008	0.013		0.011	0.010			15.49
102)	bromobenzene	0.898	1.015	0.955	0.963	0.933	0.931	0.971	0.965	0.939	0.952	3.42
103)	1,1,2,2-tetrachloroethane	0.797	0.898	0.860	0.859	0.849	0.845	0.866	0.844	0.844	0.851	3.12
104)	trans-1,4-dichloro-2-butene	0.219	0.217	0.209	0.213	0.215		0.206	0.213			2.27
105)	1,2,3-trichloropropane	0.226	0.202	0.200	0.198	0.196	0.204		0.203	0.204		4.99
106)	n-propylbenzene	0.921	0.899	0.888	0.835	0.888	0.878		0.837	0.878		3.60
107)	2-chlorotoluene	0.929	0.873	0.873	0.846	0.862	0.859		0.833	0.868		3.52
108)	4-chlorotoluene	0.906	0.883	0.882	0.843	0.880	0.875		0.849	0.874		2.48
109)	1,3,5-trimethylbenzene	2.678	3.033	2.917	2.882	2.784	2.906	2.836	2.892	2.742	2.852	3.71
110)	tert-butylbenzene	2.326	2.622	2.502	2.479	2.351	2.486	2.422	2.411	2.353	2.439	3.85
111)	pentachloroethane	0.528	0.613	0.608	0.606	0.583	0.619	0.600	0.575	0.591		5.03

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7071-ICC7071
 Lab FileID: 2A166295.D

112)	1,2,4-trimethylbenzene	2.695	3.071	2.942	2.933	2.855	2.937	2.953	2.851	2.862	2.900	3.54
113)	sec-butylbenzene	3.425	3.829	3.746	3.715	3.512	3.740	3.591	3.597	3.522	3.631	3.68
114)	1,3-dichlorobenzene	1.748	1.911	1.803	1.806	1.782	1.789	1.788	1.826	1.764	1.802	2.61
115)	p-isopropyltoluene	2.983	3.245	3.173	3.142	3.004	3.144	3.081	3.034	2.972	3.086	3.09
116)	1,4-dichlorobenzene	1.724	1.955	1.813	1.823	1.775	1.791	1.806	1.816	1.772	1.808	3.46
117)	1,2-dichlorobenzene	1.673	1.841	1.742	1.754	1.727	1.729	1.727	1.642	1.718	1.728	3.18
118)	benzyl chloride	1.562	1.570	1.517	1.530	1.534	1.479	1.518	1.580	1.536	1.536	2.02
119)	n-butylbenzene	1.597	1.779	1.675	1.670	1.586	1.661	1.644	1.481	1.584	1.631	5.05
120)	1,2-dibromo-3-chloropropane	0.144	0.146	0.144	0.148	0.142	0.144		0.138	0.144		2.20
121)	1,3,5-TRICHLOROBENZENE	1.432	1.593	1.604	1.595	1.555	1.550	1.532	1.456	1.536	1.539	3.92
122)	1,2,4-trichlorobenzene	1.268	1.391	1.485	1.470	1.419	1.430	1.385		1.363	1.401	4.86
123)	hexachlorobutadiene	0.623	0.694	0.703	0.705	0.673	0.667	0.682		0.670	0.677	3.89
124)	naphthalene	2.407	2.777	2.756	2.799	2.755	2.657	2.677		2.654	2.685	4.67
125)	1,2,3-trichlorobenzene	1.086	1.248	1.316	1.310	1.260	1.275	1.218		1.236	1.243	5.80
126)	hexachloroethane	0.482	0.570	0.612	0.597	0.568	0.612	0.562		0.569	0.572	7.30

 (#) = Out of Range ### Number of calibration levels exceeded format ###

M2A7071.M Mon Mar 14 16:42:48 2016 MS2A

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7071-ICV7071
 Lab FileID: 2A166300.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2A166300.D Vial: 23
 Acq On : 11 Mar 2016 12:52 am Operator: tracyk
 Sample : icv7071-50 Inst : Instrumen
 Misc : MS99332,V2A7071,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Sat Mar 12 15:58:04 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	-0.01	8.32
2 M	tertiary butyl alcohol	1.713	1.475	13.9	88	0.00	8.45
	----- True Calc. % Drift -----						
3 m	Ethanol	5000.000	5265.286	-5.3	98	0.00	6.87
	----- AvgRF CCRF % Dev -----						
4 M	1,4-dioxane	0.094	0.095	-1.1	106	0.00	12.38
5 I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.74
6	FREON 143A			-----NA-----			
7 M	chlorodifluoromethane	0.632	0.570	9.8	94	0.00	4.33
8 M	dichlorodifluoromethane	0.503	0.486	3.4	100	0.00	4.29
9	FREON 142B			-----NA-----			
10 M	chloromethane	0.826	0.762	7.7	97	0.00	4.74
11 M	vinyl chloride	0.721	0.703	2.5	99	-0.01	5.04
12 M	bromomethane	0.427	0.439	-2.8	108	0.00	5.80
13 M	chloroethane	0.399	0.391	2.0	101	0.00	5.99
14 M	trichlorofluoromethane	0.692	0.681	1.6	96	0.00	6.49
15	PENTANE			-----NA-----			
16 M	ethyl ether	0.288	0.286	0.7	104	0.00	7.01
17	FREON 141B			-----NA-----			
18 M	acrolein	0.115	0.110	4.3	100	0.00	7.33
19 M	1,1-dichloroethene	0.759	0.756	0.4	102	0.00	7.50
20 M	acetone	0.148	0.136	8.1	100	0.00	7.59
21 M	allyl chloride	0.313	0.312	0.3	102	0.00	8.12
22 M	acetonitrile	0.044	0.041	6.8	104	0.00	8.12
23 M	iodomethane	0.897	0.854	4.8	99	0.00	7.82
24 M	iso-butyl alcohol	0.017	0.016	5.9	102	0.00	11.30
25 M	carbon disulfide	1.687	1.676	0.7	103	0.00	7.95
26 M	methylene chloride	0.564	0.544	3.5	102	0.00	8.35
27 M	methyl acetate	0.077	0.071	7.8	93	0.00	8.11
28 M	methyl tert butyl ether	1.444	1.386	4.0	102	0.00	8.69
29 M	trans-1,2-dichloroethene	0.752	0.731	2.8	100	0.00	8.76
30 M	di-isopropyl ether	1.932	1.800	6.8	97	0.00	9.35
31 M	2-butanone	0.054	0.053	1.9	105	0.00	10.17
32 M	1,1-dichloroethane	0.977	0.955	2.3	102	0.00	9.40
33 M	chloroprene	0.781	0.689	11.8	91	0.00	9.50
34 M	acrylonitrile	0.181	0.181	0.0	104	0.00	8.74
35 M	vinyl acetate	0.088	0.085	3.4	100	0.00	9.38
36 M	ethyl tert-butyl ether	1.661	1.626	2.1	100	0.00	9.86
37 M	ethyl acetate	0.069	0.064	7.2	97	0.00	10.18

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7071-ICV7071
 Lab FileID: 2A166300.D

38 M	2,2-dichloropropane	0.741	0.675	8.9	97	0.00	10.19
39 M	cis-1,2-dichloroethene	0.622	0.581	6.6	100	0.00	10.20
40	methylacrylate	0.070	0.072	-2.9	105	0.00	10.27
41 M	propionitrile	0.066	0.067	-1.5	104	0.00	10.30
42 M	bromochloromethane	0.280	0.280	0.0	102	0.00	10.54
43 M	tetrahydrofuran	0.161	0.153	5.0	100	0.00	10.58
44 M	chloroform	0.608	0.598	1.6	105	0.00	10.60
45	t-butyl formate	0.311	0.213	31.5#	72	0.00	10.62
46 S	dibromofluoromethane (s)	0.442	0.441	0.2	105	0.00	10.81
47 S	1,2-dichloroethane-d4 (s)	0.455	0.449	1.3	103	0.00	11.24
48 M	freon 113	0.335	0.329	1.8	98	0.00	7.46
49 M	methacrylonitrile	0.308	0.296	3.9	100	0.00	10.48
50 M	1,1,1-trichloroethane	0.735	0.738	-0.4	105	0.00	10.84
51 M	Cyclohexane	0.717	0.713	0.6	99	0.00	10.91
52 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.67
53 M	epichlorohydrin	0.025	0.024	4.0	100	0.00	12.90
54 M	n-butyl alcohol	0.009	0.009#	0.0	100	0.00	11.81
55 M	carbon tetrachloride	0.472	0.459	2.8	100	0.00	11.05
56 M	1,1-dichloropropene	0.475	0.493	-3.8	106	0.00	11.03
57 M	hexane	0.468	0.352	24.8	75	0.00	9.06
58	TERT AMYL ALCOHOL	0.017	0.015	11.8	95	0.00	11.19
59	2,2,4-TRIMETHYLPENTANE	1.218	1.070	12.2	86	0.00	11.27
60 M	benzene	1.457	1.427	2.1	102	0.00	11.30
61 M	tert-amyl methyl ether	0.225	0.224	0.4	102	0.00	11.32
62 M	heptane	0.251	0.210	16.3	83	0.00	11.44
63 M	isopropyl acetate	0.839	0.784	6.6	94	0.00	11.22
64 M	1,2-dichloroethane	0.438	0.433	1.1	102	0.00	11.33
65 M	Ethyl Acrylate			-----NA-----			
66 M	trichloroethene	0.364	0.360	1.1	102	0.00	12.00
67	TERT-AMYL ETHYL ETHER			-----NA-----			
68 M	methyl methacrylate	0.080	0.081	-1.3	103	0.00	12.26
69 M	2-nitropropane	0.074	0.074	0.0	104	0.00	12.76
70 M	2-chloroethyl vinyl ether	0.045	0.045	0.0	102	0.00	12.76
71 M	1,2-dichloropropane	0.387	0.376	2.8	100	0.00	12.27
72 M	dibromomethane	0.209	0.206	1.4	99	0.00	12.43
73 M	methylcyclohexane	0.548	0.481	12.2	89	0.00	12.19
74 M	bromodichloromethane	0.484	0.468	3.3	101	0.00	12.55
75 M	cis-1,3-dichloropropene	0.599	0.595	0.7	101	0.00	12.98
76 S	toluene-d8 (s)	1.087	1.102	-1.4	105	0.00	13.24
77 M	4-methyl-2-pentanone	0.117	0.117	0.0	101	0.00	13.06
78 M	toluene	0.841	0.827	1.7	102	0.00	13.31
79 M	3-methyl-1-butanol	0.014	0.013	7.1	102	0.00	13.08
80 M	trans-1,3-dichloropropene	0.526	0.508	3.4	99	0.00	13.50
81 M	ethyl methacrylate	0.400	0.402	-0.5	103	0.00	13.47
82 M	1,1,2-trichloroethane	0.258	0.249	3.5	100	0.00	13.71
83 M	2-hexanone	0.103	0.105	-1.9	104	0.00	13.86
84 I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	14.66
85 M	tetrachloroethene	0.353	0.349	1.1	101	0.00	13.86
86 M	1,3-dichloropropane	0.572	0.561	1.9	100	0.00	13.88
87 M	butyl acetate	0.217	0.219	-0.9	105	0.00	13.91
88	3,3-dimethyl-1-butanol	0.033	0.031	6.1	98	0.00	14.02
89 M	dibromochloromethane	0.427	0.413	3.3	99	0.00	14.13
90 M	1,2-dibromoethane	0.357	0.352	1.4	101	0.00	14.27
91 M	chlorobenzene	1.097	1.084	1.2	103	0.00	14.69
92 M	1,1,1,2-tetrachloroethane	0.423	0.408	3.5	100	0.00	14.74
93 M	ethylbenzene	1.846	1.779	3.6	101	0.00	14.73
94 M	m,p-xylene	0.696	0.685	1.6	102	0.00	14.82
95 M	o-xylene	0.696	0.694	0.3	103	0.00	15.22

6.7.2
6

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7071-ICV7071
 Lab FileID: 2A166300.D

96 M	styrene	1.194	1.167	2.3	101	0.00	15.23
97 M	bromoform	0.289	0.287	0.7	100	0.00	15.50
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	16.82
99 M	isopropylbenzene	3.363	3.287	2.3	100	0.00	15.53
100 S	4-bromofluorobenzene (s)	0.879	0.884	-0.6	105	0.00	15.73
101	cyclohexanone	0.010	0.008#	20.0	85	0.00	15.71
102 M	bromobenzene	0.952	0.930	2.3	101	0.00	15.92
103 M	1,1,2,2-tetrachloroethane	0.851	0.824	3.2	100	0.00	15.83
104 M	trans-1,4-dichloro-2-bute	0.213	0.223	-4.7	107	0.00	15.87
105 M	1,2,3-trichloropropane	0.204	0.197	3.4	103	0.00	15.91
106 M	n-propylbenzene	0.878	0.884	-0.7	104	0.00	15.91
107 M	2-chlorotoluene	0.868	0.835	3.8	100	0.00	16.06
108 M	4-chlorotoluene	0.874	0.865	1.0	102	0.00	16.15
109 M	1,3,5-trimethylbenzene	2.852	2.785	2.3	101	0.00	16.04
110 M	tert-butylbenzene	2.439	2.393	1.9	100	0.00	16.37
111 M	pentachloroethane	0.591	0.585	1.0	100	0.00	16.47
112 M	1,2,4-trimethylbenzene	2.900	2.874	0.9	102	0.00	16.41
113 M	sec-butylbenzene	3.631	3.546	2.3	99	0.00	16.57
114 M	1,3-dichlorobenzene	1.802	1.729	4.1	100	0.00	16.77
115 M	p-isopropyltoluene	3.086	3.078	0.3	102	0.00	16.68
116 M	1,4-dichlorobenzene	1.808	1.752	3.1	100	0.00	16.85
117 M	1,2-dichlorobenzene	1.728	1.703	1.4	101	0.00	17.23
118 M	benzyl chloride	1.536	1.367	11.0	93	0.00	16.96
119 M	n-butylbenzene	1.631	1.585	2.8	99	0.00	17.07
120 M	1,2-dibromo-3-chloropropa	0.144	0.142	1.4	102	0.00	18.00
121	1,3,5-TRICHLOROBENZENE	1.539	1.563	-1.6	102	0.00	18.17
122 M	1,2,4-trichlorobenzene	1.401	1.414	-0.9	100	0.00	18.83
123 M	hexachlorobutadiene	0.677	0.671	0.9	99	0.00	18.93
124 M	naphthalene	2.685	2.628	2.1	98	0.00	19.12
125 M	1,2,3-trichlorobenzene	1.243	1.252	-0.7	99	0.00	19.37
126 M	hexachloroethane	0.572	0.587	-2.6	102	0.00	17.47

(#) = Out of Range
 2A166295.D M2A7071.M

SPCC's out = 0 CCC's out = 0
 Sat Mar 12 15:59:31 2016 MS2A

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7072-CC7071
 Lab FileID: 2A166304.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2A\v2a7072-7075\2A166304.D Vial: 3
 Acq On : 11 Mar 2016 10:59 am Operator: tracyk
 Sample : cc7071-20 Inst : Instrument #1
 Misc : MS99332,V2A7072,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Mon Mar 14 16:41:39 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	111	0.00	8.33
2 M	tertiary butyl alcohol	1.713	1.589	7.2	93	0.00	8.46
	----- True Calc. % Drift -----						
3 m	Ethanol	2000.000	2229.134	-11.5	109	0.01	6.88
	----- AvgRF CCRF % Dev -----						
4 M	1,4-dioxane	0.094	0.095	-1.1	110	0.00	12.38
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.75
6	FREON 143A			-----NA-----			
7 M	chlorodifluoromethane	0.632	0.607	4.0	98	0.01	4.34
8 M	dichlorodifluoromethane	0.503	0.524	-4.2	105	0.02	4.31
9	FREON 142B			-----NA-----			
10 M	chloromethane	0.826	0.824	0.2	102	0.01	4.76
11 M	vinyl chloride	0.721	0.749	-3.9	102	0.00	5.05
12 M	bromomethane	0.427	0.429	-0.5	101	0.01	5.82
13 M	chloroethane	0.399	0.398	0.3	102	0.00	6.00
14 M	trichlorofluoromethane	0.692	0.727	-5.1	106	0.02	6.51
15	PENTANE			-----NA-----			
16 M	ethyl ether	0.288	0.262	9.0	97	0.00	7.01
17	FREON 141B			-----NA-----			
18 M	acrolein	0.115	0.112	2.6	100	0.00	7.34
19 M	1,1-dichloroethene	0.759	0.723	4.7	103	0.01	7.51
20 M	acetone	0.148	0.142	4.1	96	0.02	7.60
21 M	allyl chloride	0.313	0.298	4.8	100	0.00	8.13
22 M	acetonitrile	0.044	0.043	2.3	99	0.01	8.13
23 M	iodomethane	0.897	0.806	10.1	93	0.01	7.84
24 M	iso-butyl alcohol	0.017	0.016	5.9	97	0.01	11.31
25 M	carbon disulfide	1.687	1.553	7.9	98	0.00	7.96
26 M	methylene chloride	0.564	0.522	7.4	97	0.00	8.36
27 M	methyl acetate	0.077	0.074	3.9	97	0.00	8.12
28 M	methyl tert butyl ether	1.444	1.358	6.0	97	0.00	8.70
29 M	trans-1,2-dichloroethene	0.752	0.710	5.6	99	0.01	8.77
30 M	di-isopropyl ether	1.932	1.789	7.4	95	0.00	9.36
31 M	2-butanone	0.054	0.052	3.7	99	0.01	10.18
32 M	1,1-dichloroethane	0.977	0.912	6.7	98	0.00	9.40
33 M	chloroprene	0.781	0.716	8.3	96	0.00	9.51
34 M	acrylonitrile	0.181	0.173	4.4	99	0.00	8.75
35 M	vinyl acetate	0.088	0.084	4.5	102	0.00	9.39
36 M	ethyl tert-butyl ether	1.661	1.569	5.5	96	0.00	9.87
37 M	ethyl acetate	0.069	0.064	7.2	94	0.00	10.19

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7072-CC7071
 Lab FileID: 2A166304.D

38 M	2,2-dichloropropane	0.741	0.720	2.8	104	0.01	10.20
39 M	cis-1,2-dichloroethene	0.622	0.556	10.6	96	0.00	10.21
40	methylacrylate	0.070	0.067	4.3	101	0.01	10.28
41 M	propionitrile	0.066	0.066	0.0	101	0.00	10.31
42 M	bromochloromethane	0.280	0.269	3.9	100	0.01	10.55
43 M	tetrahydrofuran	0.161	0.156	3.1	97	0.02	10.59
44 M	chloroform	0.608	0.562	7.6	98	0.00	10.60
45	t-butyl formate	0.311	0.278	10.6	97	0.00	10.62
46 S	dibromofluoromethane (s)	0.442	0.448	-1.4	105	0.00	10.82
47 S	1,2-dichloroethane-d4 (s)	0.455	0.468	-2.9	105	0.00	11.25
48 M	freon 113	0.335	0.334	0.3	101	0.02	7.47
49 M	methacrylonitrile	0.308	0.300	2.6	101	0.00	10.49
50 M	1,1,1-trichloroethane	0.735	0.698	5.0	101	0.00	10.85
51 M	Cyclohexane	0.717	0.695	3.1	103	0.00	10.91
52 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.68
53 M	epichlorohydrin	0.025	0.024	4.0	102	0.00	12.90
54 M	n-butyl alcohol	0.009	0.009#	0.0	105	0.00	11.82
55 M	carbon tetrachloride	0.472	0.456	3.4	103	0.00	11.05
56 M	1,1-dichloropropene	0.475	0.451	5.1	103	0.00	11.03
57 M	hexane	0.468	0.472	-0.9	106	0.01	9.07
58	TERT AMYL ALCOHOL	0.017	0.019	-11.8	108	0.00	11.19
59	2,2,4-TRIMETHYLPENTANE	1.218	1.223	-0.4	102	0.00	11.28
60 M	benzene	1.457	1.346	7.6	98	0.00	11.30
61 M	tert-amyl methyl ether	0.225	0.214	4.9	96	0.00	11.32
62 M	heptane	0.251	0.254	-1.2	106	0.00	11.44
63 M	isopropyl acetate	0.839	0.838	0.1	101	0.00	11.22
64 M	1,2-dichloroethane	0.438	0.420	4.1	99	0.00	11.34
65 M	Ethyl Acrylate			-----NA-----			
66 M	trichloroethene	0.364	0.337	7.4	99	0.00	12.00
67	TERT-AMYL ETHYL ETHER			-----NA-----			
68 M	methyl methacrylate	0.080	0.078	2.5	102	0.00	12.26
69 M	2-nitropropane	0.074	0.072	2.7	100	0.00	12.77
70 M	2-chloroethyl vinyl ether	0.045	0.040	11.1	97	0.00	12.77
71 M	1,2-dichloropropane	0.387	0.367	5.2	98	0.00	12.27
72 M	dibromomethane	0.209	0.205	1.9	100	0.00	12.43
73 M	methylcyclohexane	0.548	0.514	6.2	98	0.00	12.20
74 M	bromodichloromethane	0.484	0.453	6.4	98	0.00	12.55
75 M	cis-1,3-dichloropropene	0.599	0.575	4.0	100	0.00	12.98
76 S	toluene-d8 (s)	1.087	1.096	-0.8	103	0.00	13.24
77 M	4-methyl-2-pentanone	0.117	0.112	4.3	98	0.00	13.06
78 M	toluene	0.841	0.778	7.5	99	0.00	13.31
79 M	3-methyl-1-butanol	0.014	0.014	0.0	103	0.00	13.09
80 M	trans-1,3-dichloropropene	0.526	0.511	2.9	102	0.00	13.50
81 M	ethyl methacrylate	0.400	0.382	4.5	100	0.00	13.48
82 M	1,1,2-trichloroethane	0.258	0.242	6.2	99	0.00	13.71
83 M	2-hexanone	0.103	0.103	0.0	105	0.00	13.86
84 I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	14.67
85 M	tetrachloroethene	0.353	0.335	5.1	100	0.00	13.86
86 M	1,3-dichloropropane	0.572	0.559	2.3	101	0.00	13.88
87 M	butyl acetate	0.217	0.205	5.5	97	0.00	13.91
88	3,3-dimethyl-1-butanol	0.033	0.033	0.0	100	0.00	14.02
89 M	dibromochloromethane	0.427	0.413	3.3	101	0.00	14.13
90 M	1,2-dibromoethane	0.357	0.345	3.4	100	0.00	14.27
91 M	chlorobenzene	1.097	1.041	5.1	100	0.00	14.69
92 M	1,1,1,2-tetrachloroethane	0.423	0.399	5.7	97	0.00	14.75
93 M	ethylbenzene	1.846	1.727	6.4	100	0.00	14.73
94 M	m,p-xylene	0.696	0.656	5.7	100	0.00	14.83
95 M	o-xylene	0.696	0.651	6.5	99	0.00	15.22

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7072-CC7071
 Lab FileID: 2A166304.D

96 M	styrene	1.194	1.128	5.5	99	0.00	15.23
97 M	bromoform	0.289	0.279	3.5	99	0.00	15.50
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	16.82
99 M	isopropylbenzene	3.363	3.139	6.7	98	0.00	15.53
100 S	4-bromofluorobenzene (s)	0.879	0.883	-0.5	103	0.00	15.74
101	cyclohexanone	0.010	0.020	-100.0#	210#	0.00	15.72
102 M	bromobenzene	0.952	0.916	3.8	101	0.00	15.92
103 M	1,1,2,2-tetrachloroethane	0.851	0.826	2.9	100	0.00	15.84
104 M	trans-1,4-dichloro-2-bute	0.213	0.217	-1.9	106	0.00	15.87
105 M	1,2,3-trichloropropane	0.204	0.199	2.5	103	0.00	15.91
106 M	n-propylbenzene	0.878	0.837	4.7	103	0.00	15.91
107 M	2-chlorotoluene	0.868	0.812	6.5	98	0.00	16.06
108 M	4-chlorotoluene	0.874	0.823	5.8	100	0.00	16.15
109 M	1,3,5-trimethylbenzene	2.852	2.667	6.5	98	0.00	16.05
110 M	tert-butylbenzene	2.439	2.294	5.9	100	0.00	16.37
111 M	pentachloroethane	0.591	0.571	3.4	100	0.00	16.47
112 M	1,2,4-trimethylbenzene	2.900	2.729	5.9	98	0.00	16.42
113 M	sec-butylbenzene	3.631	3.458	4.8	101	0.00	16.57
114 M	1,3-dichlorobenzene	1.802	1.711	5.0	98	0.00	16.77
115 M	p-isopropyltoluene	3.086	2.965	3.9	101	0.00	16.68
116 M	1,4-dichlorobenzene	1.808	1.729	4.4	100	0.00	16.85
117 M	1,2-dichlorobenzene	1.728	1.687	2.4	100	0.00	17.23
118 M	benzyl chloride	1.536	1.569	-2.1	105	0.00	16.96
119 M	n-butylbenzene	1.631	1.573	3.6	102	0.00	17.08
120 M	1,2-dibromo-3-chloropropa	0.144	0.140	2.8	97	0.00	18.00
121	1,3,5-TRICHLOROBENZENE	1.539	1.512	1.8	100	0.00	18.17
122 M	1,2,4-trichlorobenzene	1.401	1.383	1.3	100	0.00	18.83
123 M	hexachlorobutadiene	0.677	0.663	2.1	101	0.00	18.93
124 M	naphthalene	2.685	2.639	1.7	98	0.00	19.12
125 M	1,2,3-trichlorobenzene	1.243	1.218	2.0	99	0.00	19.37
126 M	hexachloroethane	0.572	0.560	2.1	101	0.00	17.47

(#) = Out of Range
 2A166294.D M2A7071.M

SPCC's out = 0 CCC's out = 0
 Tue Mar 15 09:53:56 2016 T

Continuing Calibration Summary

Job Number: JC15796

Sample: V2A7072-ECC7071

Account: AMANYWP Anderson, Mulholland & Associates

Lab FileID: 2A166325.D

Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2A\v2a7072-7075\2A166325.D Vial: 23
 Acq On : 11 Mar 2016 9:35 pm Operator: tracyk
 Sample : ecc7071-20 Inst : Instrument #1
 Misc : MS99488,V2A7072,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Mon Mar 14 16:41:39 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	111	0.00	8.33
2 M	tertiary butyl alcohol	1.713	1.457	14.9	85	0.00	8.45
	----- True Calc. % Drift -----						
3 m	Ethanol	2000.000	2162.422	-8.1	106	0.01	6.88
	----- AvgRF CCRF % Dev -----						
4 M	1,4-dioxane	0.094	0.097	-3.2	113	0.00	12.38
5 I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.75
6	FREON 143A			-----NA-----			
7 M	chlorodifluoromethane	0.632	0.579	8.4	95	0.00	4.34
8 M	dichlorodifluoromethane	0.503	0.508	-1.0	103	0.01	4.30
9	FREON 142B			-----NA-----			
10 M	chloromethane	0.826	0.800	3.1	100	0.00	4.75
11 M	vinyl chloride	0.721	0.715	0.8	99	0.00	5.05
12 M	bromomethane	0.427	0.405	5.2	97	0.01	5.82
13 M	chloroethane	0.399	0.382	4.3	99	0.00	6.00
14 M	trichlorofluoromethane	0.692	0.687	0.7	101	0.01	6.50
15	PENTANE			-----NA-----			
16 M	ethyl ether	0.288	0.257	10.8	96	0.00	7.01
17	FREON 141B			-----NA-----			
18 M	acrolein	0.115	0.106	7.8	95	0.00	7.34
19 M	1,1-dichloroethene	0.759	0.703	7.4	101	0.01	7.51
20 M	acetone	0.148	0.162	-9.5	111	0.01	7.60
21 M	allyl chloride	0.313	0.272	13.1	92	0.00	8.13
22 M	acetonitrile	0.044	0.042	4.5	99	0.00	8.12
23 M	iodomethane	0.897	0.821	8.5	96	0.01	7.84
24 M	iso-butyl alcohol	0.017	0.015	11.8	97	0.00	11.31
25 M	carbon disulfide	1.687	1.470	12.9	94	0.00	7.96
26 M	methylene chloride	0.564	0.508	9.9	95	0.00	8.36
27 M	methyl acetate	0.077	0.072	6.5	96	0.01	8.13
28 M	methyl tert butyl ether	1.444	1.344	6.9	97	0.00	8.70
29 M	trans-1,2-dichloroethene	0.752	0.711	5.5	100	0.01	8.77
30 M	di-isopropyl ether	1.932	1.762	8.8	95	0.00	9.36
31 M	2-butanone	0.054	0.052	3.7	100	0.00	10.18
32 M	1,1-dichloroethane	0.977	0.901	7.8	98	0.00	9.40
33 M	chloroprene	0.781	0.708	9.3	96	0.00	9.51
34 M	acrylonitrile	0.181	0.168	7.2	97	0.00	8.75
35 M	vinyl acetate	0.088	0.082	6.8	101	0.00	9.39
36 M	ethyl tert-butyl ether	1.661	1.528	8.0	95	0.00	9.86
37 M	ethyl acetate	0.069	0.063	8.7	93	0.00	10.19

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7072-ECC7071
 Lab FileID: 2A166325.D

38 M	2,2-dichloropropane	0.741	0.565	23.8#	82	0.00	10.19
39 M	cis-1,2-dichloroethene	0.622	0.543	12.7	95	0.00	10.21
40	methylacrylate	0.070	0.066	5.7	102	0.01	10.28
41 M	propionitrile	0.066	0.065	1.5	101	0.00	10.30
42 M	bromochloromethane	0.280	0.266	5.0	100	0.00	10.54
43 M	tetrahydrofuran	0.161	0.155	3.7	98	0.00	10.58
44 M	chloroform	0.608	0.551	9.4	97	0.00	10.61
45	t-butyl formate	0.311	0.292	6.1	103	0.01	10.63
46 S	dibromofluoromethane (s)	0.442	0.443	-0.2	105	0.00	10.82
47 S	1,2-dichloroethane-d4 (s)	0.455	0.463	-1.8	106	0.00	11.25
48 M	freon 113	0.335	0.302	9.9	93	0.02	7.47
49 M	methacrylonitrile	0.308	0.298	3.2	102	0.00	10.49
50 M	1,1,1-trichloroethane	0.735	0.674	8.3	98	0.00	10.85
51 M	Cyclohexane	0.717	0.675	5.9	102	0.00	10.91
52 I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00	11.67
53 M	epichlorohydrin	0.025	0.021	16.0	91	0.00	12.90
54 M	n-butyl alcohol	0.009	0.009#	0.0	103	0.00	11.82
55 M	carbon tetrachloride	0.472	0.447	5.3	101	0.00	11.05
56 M	1,1-dichloropropene	0.475	0.438	7.8	99	0.00	11.03
57 M	hexane	0.468	0.418	10.7	93	0.00	9.07
58	TERT AMYL ALCOHOL	0.017	0.018	-5.9	104	0.00	11.19
59	2,2,4-TRIMETHYLPENTANE	1.218	1.108	9.0	92	0.00	11.27
60 M	benzene	1.457	1.340	8.0	97	0.00	11.30
61 M	tert-amyl methyl ether	0.225	0.210	6.7	94	0.00	11.32
62 M	heptane	0.251	0.216	13.9	90	0.00	11.44
63 M	isopropyl acetate	0.839	0.805	4.1	97	0.00	11.22
64 M	1,2-dichloroethane	0.438	0.431	1.6	102	0.00	11.33
65 M	Ethyl Acrylate			-----NA-----			
66 M	trichloroethene	0.364	0.336	7.7	98	0.00	12.00
67	TERT-AMYL ETHYL ETHER			-----NA-----			
68 M	methyl methacrylate	0.080	0.075	6.3	98	0.00	12.27
69 M	2-nitropropane	0.074	0.073	1.4	101	0.00	12.76
70 M	2-chloroethyl vinyl ether	0.045	0.036	20.0#	87	0.00	12.76
71 M	1,2-dichloropropane	0.387	0.367	5.2	98	0.00	12.27
72 M	dibromomethane	0.209	0.205	1.9	100	0.00	12.43
73 M	methylcyclohexane	0.548	0.498	9.1	94	0.00	12.20
74 M	bromodichloromethane	0.484	0.449	7.2	97	0.00	12.55
75 M	cis-1,3-dichloropropene	0.599	0.544	9.2	94	0.00	12.98
76 S	toluene-d8 (s)	1.087	1.085	0.2	102	0.00	13.24
77 M	4-methyl-2-pentanone	0.117	0.113	3.4	98	0.00	13.06
78 M	toluene	0.841	0.760	9.6	97	0.00	13.31
79 M	3-methyl-1-butanol	0.014	0.013	7.1	97	0.00	13.08
80 M	trans-1,3-dichloropropene	0.526	0.485	7.8	96	0.00	13.50
81 M	ethyl methacrylate	0.400	0.376	6.0	98	0.00	13.48
82 M	1,1,2-trichloroethane	0.258	0.241	6.6	99	0.00	13.71
83 M	2-hexanone	0.103	0.101	1.9	102	0.00	13.86
84 I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.66
85 M	tetrachloroethene	0.353	0.329	6.8	97	0.00	13.86
86 M	1,3-dichloropropane	0.572	0.559	2.3	100	0.00	13.88
87 M	butyl acetate	0.217	0.213	1.8	99	0.00	13.91
88	3,3-dimethyl-1-butanol	0.033	0.033	0.0	98	0.00	14.02
89 M	dibromochloromethane	0.427	0.416	2.6	101	0.00	14.13
90 M	1,2-dibromoethane	0.357	0.342	4.2	97	0.00	14.27
91 M	chlorobenzene	1.097	1.028	6.3	97	0.00	14.69
92 M	1,1,1,2-tetrachloroethane	0.423	0.407	3.8	97	0.00	14.75
93 M	ethylbenzene	1.846	1.691	8.4	96	0.00	14.73
94 M	m,p-xylene	0.696	0.648	6.9	98	0.00	14.83
95 M	o-xylene	0.696	0.643	7.6	96	0.00	15.22

6.7.4

6

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7072-ECC7071
 Lab FileID: 2A166325.D

96 M	styrene	1.194	1.129	5.4	97	0.00	15.23
97 M	bromoform	0.289	0.281	2.8	98	0.00	15.50
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	16.82
99 M	isopropylbenzene	3.363	3.084	8.3	97	0.00	15.53
100 S	4-bromofluorobenzene (s)	0.879	0.870	1.0	102	0.00	15.73
101	cyclohexanone	0.010	0.009#	10.0	96	0.00	15.72
102 M	bromobenzene	0.952	0.899	5.6	99	0.00	15.92
103 M	1,1,2,2-tetrachloroethane	0.851	0.821	3.5	100	0.00	15.83
104 M	trans-1,4-dichloro-2-bute	0.213	0.190	10.8	94	0.00	15.87
105 M	1,2,3-trichloropropane	0.204	0.194	4.9	101	0.00	15.91
106 M	n-propylbenzene	0.878	0.794	9.6	98	0.00	15.91
107 M	2-chlorotoluene	0.868	0.788	9.2	96	0.00	16.06
108 M	4-chlorotoluene	0.874	0.804	8.0	98	0.00	16.15
109 M	1,3,5-trimethylbenzene	2.852	2.579	9.6	95	0.00	16.04
110 M	tert-butylbenzene	2.439	2.278	6.6	100	0.00	16.37
111 M	pentachloroethane	0.591	0.562	4.9	99	0.00	16.46
112 M	1,2,4-trimethylbenzene	2.900	2.655	8.4	96	0.00	16.41
113 M	sec-butylbenzene	3.631	3.310	8.8	97	0.00	16.57
114 M	1,3-dichlorobenzene	1.802	1.682	6.7	97	0.00	16.77
115 M	p-isopropyltoluene	3.086	2.825	8.5	97	0.00	16.68
116 M	1,4-dichlorobenzene	1.808	1.705	5.7	99	0.00	16.85
117 M	1,2-dichlorobenzene	1.728	1.648	4.6	98	0.00	17.23
118 M	benzyl chloride	1.536	1.076	29.9#	72	0.00	16.96
119 M	n-butylbenzene	1.631	1.463	10.3	95	0.00	17.07
120 M	1,2-dibromo-3-chloropropa	0.144	0.147	-2.1	102	0.00	18.00
121	1,3,5-TRICHLOROBENZENE	1.539	1.437	6.6	95	0.00	18.17
122 M	1,2,4-trichlorobenzene	1.401	1.340	4.4	97	0.00	18.83
123 M	hexachlorobutadiene	0.677	0.627	7.4	96	0.00	18.93
124 M	naphthalene	2.685	2.611	2.8	98	0.00	19.12
125 M	1,2,3-trichlorobenzene	1.243	1.212	2.5	99	0.00	19.37
126 M	hexachloroethane	0.572	0.535	6.5	97	0.00	17.47

(#) = Out of Range
 2A166294.D M2A7071.M

SPCC's out = 0 CCC's out = 0
 Tue Mar 15 10:10:06 2016 T

6.7.4
 6

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7074-CC7071
 Lab FileID: 2A166375.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2A\v2a7072-7075\2A166375.D Vial: 2
 Acq On : 14 Mar 2016 9:55 am Operator: tracyk
 Sample : cc7071-20 Inst : Instrument #1
 Misc : MS99478,V2A7074,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Mon Mar 14 16:41:39 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	0.00	8.32
2 M	tertiary butyl alcohol	1.713	1.361	20.5#	77	0.00	8.46
		----- True	Calc.	% Drift	-----		
3 m	Ethanol	2000.000	2317.734	-15.9	109	0.00	6.87
		----- AvgRF	CCRF	% Dev	-----		
4 M	1,4-dioxane	0.094	0.106	-12.8	118	0.00	12.38
5 I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	10.75
6	FREON 143A			-----NA-----			
7 M	chlorodifluoromethane	0.632	0.665	-5.2	109	0.00	4.33
8 M	dichlorodifluoromethane	0.503	0.567	-12.7	116	0.00	4.29
9	FREON 142B			-----NA-----			
10 M	chloromethane	0.826	0.878	-6.3	110	0.00	4.75
11 M	vinyl chloride	0.721	0.764	-6.0	106	0.00	5.05
12 M	bromomethane	0.427	0.430	-0.7	103	0.01	5.82
13 M	chloroethane	0.399	0.411	-3.0	107	0.00	6.00
14 M	trichlorofluoromethane	0.692	0.748	-8.1	111	0.00	6.49
15	PENTANE			-----NA-----			
16 M	ethyl ether	0.288	0.271	5.9	102	0.00	7.01
17	FREON 141B			-----NA-----			
18 M	acrolein	0.115	0.112	2.6	101	0.00	7.33
19 M	1,1-dichloroethene	0.759	0.759	0.0	109	0.00	7.50
20 M	acetone	0.148	0.147	0.7	101	0.00	7.59
21 M	allyl chloride	0.313	0.294	6.1	100	0.00	8.12
22 M	acetonitrile	0.044	0.047	-6.8	110	0.00	8.12
23 M	iodomethane	0.897	0.831	7.4	97	0.00	7.83
24 M	iso-butyl alcohol	0.017	0.017	0.0	104	0.01	11.31
25 M	carbon disulfide	1.687	1.557	7.7	100	0.00	7.96
26 M	methylene chloride	0.564	0.558	1.1	105	0.00	8.35
27 M	methyl acetate	0.077	0.074	3.9	100	0.00	8.12
28 M	methyl tert butyl ether	1.444	1.435	0.6	104	0.00	8.70
29 M	trans-1,2-dichloroethene	0.752	0.778	-3.5	110	0.00	8.76
30 M	di-isopropyl ether	1.932	1.949	-0.9	106	0.00	9.36
31 M	2-butanone	0.054	0.052	3.7	100	0.00	10.17
32 M	1,1-dichloroethane	0.977	0.995	-1.8	109	0.00	9.40
33 M	chloroprene	0.781	0.774	0.9	106	0.00	9.50
34 M	acrylonitrile	0.181	0.180	0.6	105	0.00	8.75
35 M	vinyl acetate	0.088	0.088	0.0	110	0.00	9.38
36 M	ethyl tert-butyl ether	1.661	1.660	0.1	103	0.00	9.86
37 M	ethyl acetate	0.069	0.067	2.9	98	0.00	10.18

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7074-CC7071
 Lab FileID: 2A166375.D

38 M	2,2-dichloropropane	0.741	0.805	-8.6	118	0.00	10.19
39 M	cis-1,2-dichloroethene	0.622	0.597	4.0	104	0.00	10.20
40	methylacrylate	0.070	0.065	7.1	100	0.00	10.27
41 M	propionitrile	0.066	0.067	-1.5	105	0.00	10.30
42 M	bromochloromethane	0.280	0.288	-2.9	109	0.00	10.54
43 M	tetrahydrofuran	0.161	0.164	-1.9	104	0.01	10.58
44 M	chloroform	0.608	0.615	-1.2	109	0.00	10.60
45	t-butyl formate	0.311	0.338	-8.7	120	0.00	10.62
46 S	dibromofluoromethane (s)	0.442	0.451	-2.0	107	0.00	10.82
47 S	1,2-dichloroethane-d4 (s)	0.455	0.479	-5.3	109	0.00	11.25
48 M	freon 113	0.335	0.328	2.1	101	0.01	7.47
49 M	methacrylonitrile	0.308	0.309	-0.3	106	0.00	10.48
50 M	1,1,1-trichloroethane	0.735	0.754	-2.6	110	0.00	10.85
51 M	Cyclohexane	0.717	0.731	-2.0	110	0.00	10.91
52 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.67
53 M	epichlorohydrin	0.025	0.024	4.0	106	0.00	12.90
54 M	n-butyl alcohol	0.009	0.009#	0.0	96	0.00	11.81
55 M	carbon tetrachloride	0.472	0.505	-7.0	114	0.00	11.05
56 M	1,1-dichloropropene	0.475	0.476	-0.2	109	0.00	11.03
57 M	hexane	0.468	0.482	-3.0	108	0.00	9.07
58	TERT AMYL ALCOHOL	0.017	0.016	5.9	91	0.00	11.18
59	2,2,4-TRIMETHYLPENTANE	1.218	1.292	-6.1	108	0.00	11.28
60 M	benzene	1.457	1.428	2.0	104	0.00	11.30
61 M	tert-amyl methyl ether	0.225	0.225	0.0	102	0.00	11.32
62 M	heptane	0.251	0.261	-4.0	110	0.00	11.44
63 M	isopropyl acetate	0.839	0.870	-3.7	105	0.00	11.22
64 M	1,2-dichloroethane	0.438	0.473	-8.0	112	0.00	11.33
65 M	Ethyl Acrylate			-----NA-----			
66 M	trichloroethene	0.364	0.358	1.6	105	0.00	12.00
67	TERT-AMYL ETHYL ETHER			-----NA-----			
68 M	methyl methacrylate	0.080	0.077	3.8	102	0.00	12.26
69 M	2-nitropropane	0.074	0.082	-10.8	114	0.00	12.77
70 M	2-chloroethyl vinyl ether	0.045	0.053	-17.8	129	0.00	12.77
71 M	1,2-dichloropropane	0.387	0.392	-1.3	105	0.00	12.27
72 M	dibromomethane	0.209	0.218	-4.3	107	0.00	12.43
73 M	methylcyclohexane	0.548	0.540	1.5	103	0.00	12.20
74 M	bromodichloromethane	0.484	0.498	-2.9	109	0.00	12.55
75 M	cis-1,3-dichloropropene	0.599	0.605	-1.0	105	0.00	12.98
76 S	toluene-d8 (s)	1.087	1.078	0.8	102	0.00	13.24
77 M	4-methyl-2-pentanone	0.117	0.112	4.3	98	0.01	13.07
78 M	toluene	0.841	0.805	4.3	103	0.00	13.31
79 M	3-methyl-1-butanol	0.014	0.012	14.3	89	0.00	13.08
80 M	trans-1,3-dichloropropene	0.526	0.542	-3.0	108	0.00	13.50
81 M	ethyl methacrylate	0.400	0.388	3.0	102	0.00	13.48
82 M	1,1,2-trichloroethane	0.258	0.256	0.8	105	0.00	13.71
83 M	2-hexanone	0.103	0.102	1.0	104	0.00	13.86
84 I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.66
85 M	tetrachloroethene	0.353	0.351	0.6	104	0.00	13.86
86 M	1,3-dichloropropane	0.572	0.594	-3.8	106	0.00	13.88
87 M	butyl acetate	0.217	0.219	-0.9	102	0.00	13.91
88	3,3-dimethyl-1-butanol	0.033	0.029	12.1	86	0.00	14.02
89 M	dibromochloromethane	0.427	0.448	-4.9	109	0.00	14.13
90 M	1,2-dibromoethane	0.357	0.361	-1.1	103	0.00	14.27
91 M	chlorobenzene	1.097	1.101	-0.4	104	0.00	14.69
92 M	1,1,1,2-tetrachloroethane	0.423	0.448	-5.9	107	0.00	14.75
93 M	ethylbenzene	1.846	1.832	0.8	105	0.00	14.73
94 M	m,p-xylene	0.696	0.692	0.6	104	0.00	14.83
95 M	o-xylene	0.696	0.707	-1.6	106	0.00	15.22

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: V2A7074-CC7071
 Lab FileID: 2A166375.D

96 M	styrene	1.194	1.209	-1.3	105	0.00	15.23
97 M	bromoform	0.289	0.312	-8.0	110	0.00	15.50
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	16.82
99 M	isopropylbenzene	3.363	3.184	5.3	107	0.00	15.53
100 S	4-bromofluorobenzene (s)	0.879	0.832	5.3	104	0.00	15.73
101	cyclohexanone	0.010	0.022	-120.0#	253#	0.00	15.72
102 M	bromobenzene	0.952	0.920	3.4	108	0.00	15.92
103 M	1,1,2,2-tetrachloroethane	0.851	0.819	3.8	106	0.00	15.84
104 M	trans-1,4-dichloro-2-bute	0.213	0.223	-4.7	117	0.00	15.87
105 M	1,2,3-trichloropropane	0.204	0.199	2.5	111	0.00	15.91
106 M	n-propylbenzene	0.878	0.836	4.8	110	0.00	15.91
107 M	2-chlorotoluene	0.868	0.828	4.6	107	0.00	16.06
108 M	4-chlorotoluene	0.874	0.842	3.7	110	0.00	16.15
109 M	1,3,5-trimethylbenzene	2.852	2.725	4.5	107	0.00	16.05
110 M	tert-butylbenzene	2.439	2.308	5.4	108	0.00	16.37
111 M	pentachloroethane	0.591	0.605	-2.4	114	0.00	16.47
112 M	1,2,4-trimethylbenzene	2.900	2.809	3.1	108	0.00	16.41
113 M	sec-butylbenzene	3.631	3.538	2.6	111	0.00	16.57
114 M	1,3-dichlorobenzene	1.802	1.779	1.3	110	0.00	16.77
115 M	p-isopropyltoluene	3.086	3.015	2.3	110	0.00	16.68
116 M	1,4-dichlorobenzene	1.808	1.787	1.2	111	0.00	16.85
117 M	1,2-dichlorobenzene	1.728	1.737	-0.5	110	0.00	17.23
118 M	benzyl chloride	1.536	1.635	-6.4	117	0.00	16.96
119 M	n-butylbenzene	1.631	1.618	0.8	112	0.00	17.08
120 M	1,2-dibromo-3-chloropropa	0.144	0.145	-0.7	108	0.00	18.00
121	1,3,5-TRICHLOROBENZENE	1.539	1.562	-1.5	110	0.00	18.17
122 M	1,2,4-trichlorobenzene	1.401	1.395	0.4	108	0.00	18.83
123 M	hexachlorobutadiene	0.677	0.673	0.6	110	0.00	18.93
124 M	naphthalene	2.685	2.613	2.7	104	0.00	19.12
125 M	1,2,3-trichlorobenzene	1.243	1.234	0.7	108	0.00	19.37
126 M	hexachloroethane	0.572	0.571	0.2	110	0.00	17.48

(#) = Out of Range
 2A166294.D M2A7071.M

SPCC's out = 0 CCC's out = 0
 Tue Mar 15 10:17:06 2016 T

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166320.D
 Acq On : 11 Mar 2016 7:07 pm
 Operator : tracyk
 Sample : jc15796-1
 Misc : MS99488,V2A7072,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 15 10:06:54 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

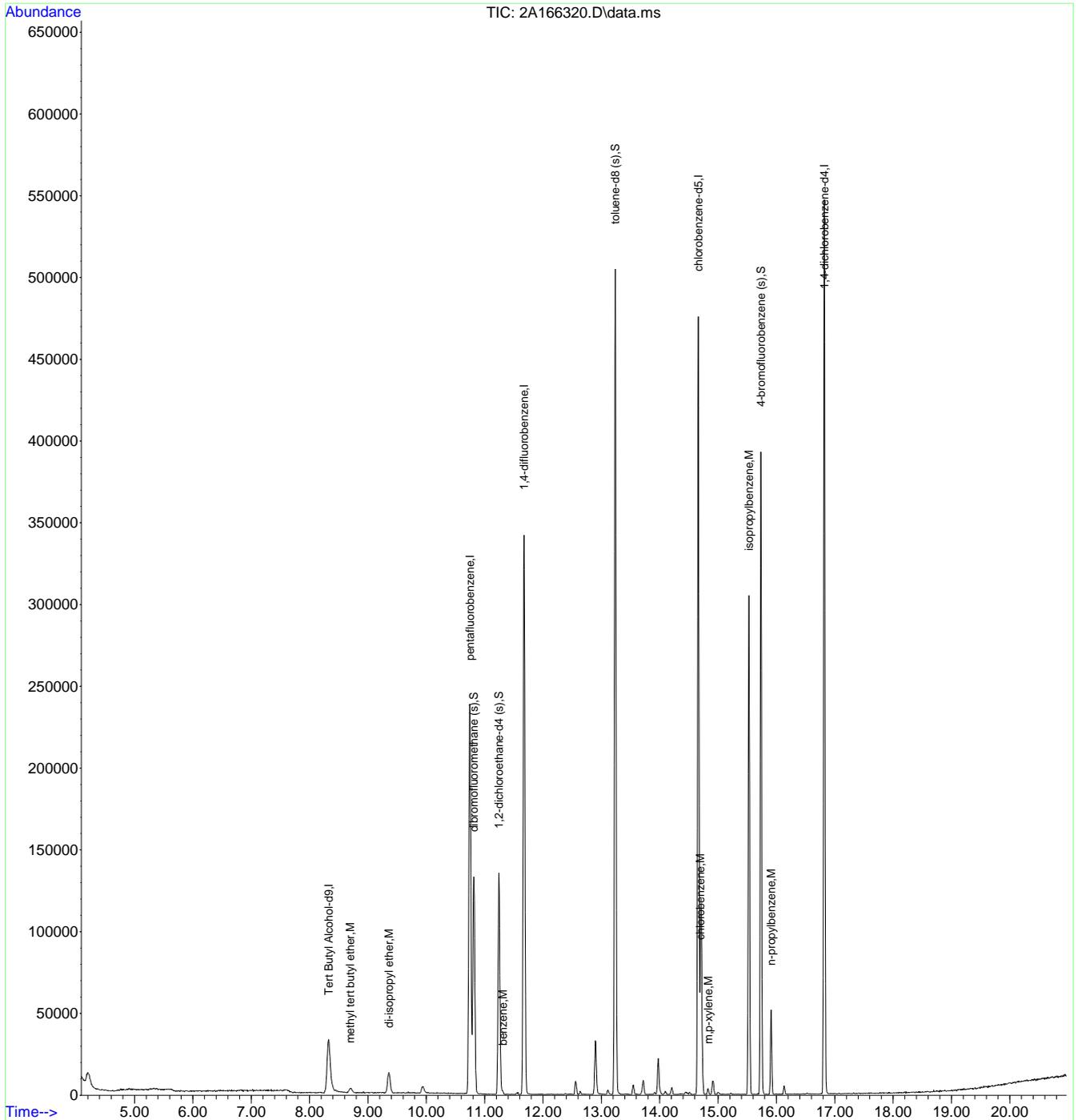
Internal Standards						
1) Tert Butyl Alcohol-d9	8.327	65	83996	500.00	ug/L	0.00
5) pentafluorobenzene	10.748	168	222380	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.674	114	319415	50.00	ug/L	0.00
84) chlorobenzene-d5	14.661	117	266404	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.821	152	143212	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.811	113	98035	49.86	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	99.72%
47) 1,2-dichloroethane-d4 (s)	11.245	65	105402	52.05	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	104.10%
76) toluene-d8 (s)	13.238	98	343191	49.43	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	98.86%
100) 4-bromofluorobenzene (s)	15.733	95	124887	49.60	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	99.20%
Target Compounds						
28) methyl tert butyl ether	8.698	73	4863	0.76	ug/L	100
30) di-isopropyl ether	9.357	45	16995	1.98	ug/L	88
60) benzene	11.308	78	2033	0.22	ug/L	85
91) chlorobenzene	14.692	112	1971	0.34	ug/L	88
94) m,p-xylene	14.833	106	1086	0.29	ug/L	87
99) isopropylbenzene	15.529	105	208043	21.60	ug/L	99
106) n-propylbenzene	15.911	120	9211	3.66	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

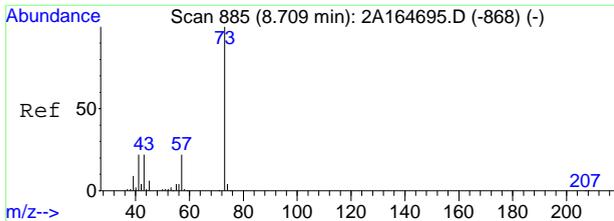
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166320.D
 Acq On : 11 Mar 2016 7:07 pm
 Operator : tracyk
 Sample : jcl15796-1
 Misc : MS99488,V2A7072,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 15 10:06:54 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

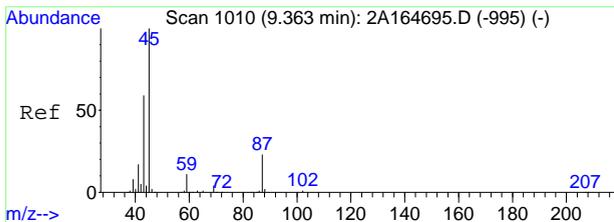
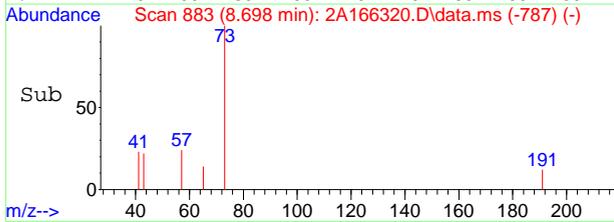
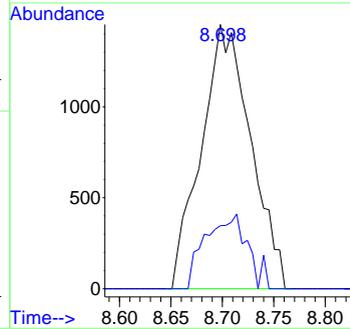
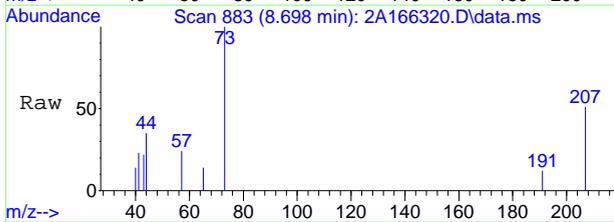


7.1.7



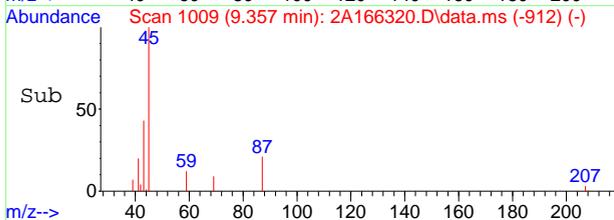
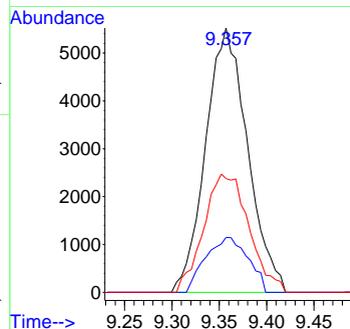
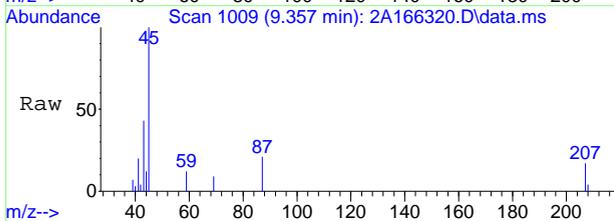
#28
 methyl tert butyl ether
 Concen: 0.76 ug/L
 RT: 8.698 min Scan# 883
 Delta R.T. 0.000 min
 Lab File: 2A166320.D
 Acq: 11 Mar 2016 7:07 pm

Tgt Ion	Resp	Lower	Upper
73	4863	100	
57	23.9	0.0	48.2

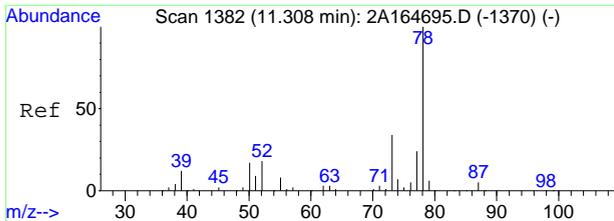


#30
 di-isopropyl ether
 Concen: 1.98 ug/L
 RT: 9.357 min Scan# 1009
 Delta R.T. 0.005 min
 Lab File: 2A166320.D
 Acq: 11 Mar 2016 7:07 pm

Tgt Ion	Resp	Lower	Upper
45	16995	100	
87	20.8	0.0	53.0
43	43.0	23.4	83.4

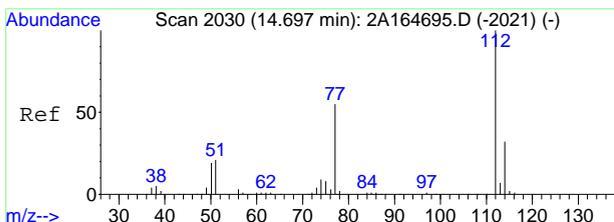
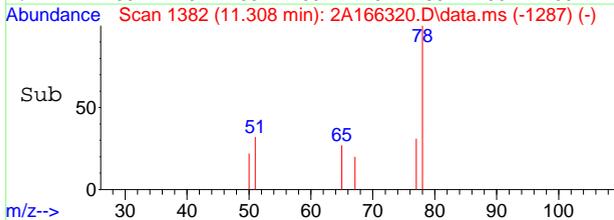
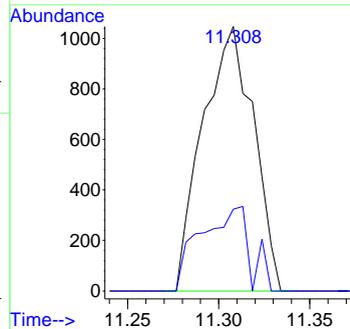
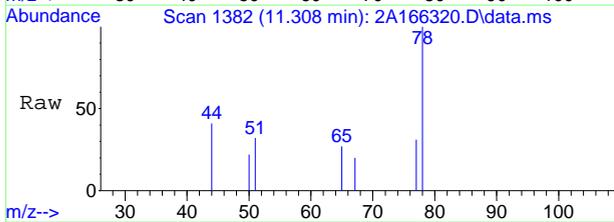


7.1.1
7



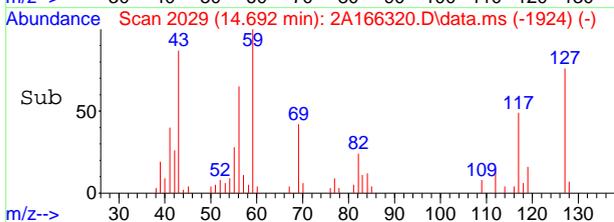
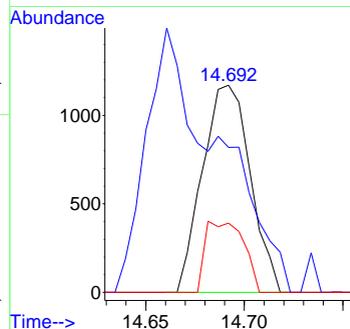
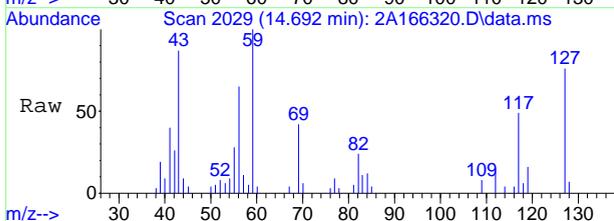
#60
benzene
Concen: 0.22 ug/L
RT: 11.308 min Scan# 1382
Delta R.T. 0.005 min
Lab File: 2A166320.D
Acq: 11 Mar 2016 7:07 pm

Tgt Ion	Resp	Lower	Upper
78	2033	100	
77	30.9	0.0	53.6

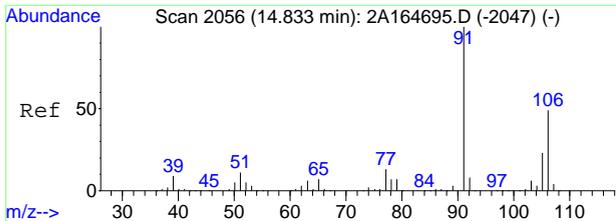


#91
chlorobenzene
Concen: 0.34 ug/L
RT: 14.692 min Scan# 2029
Delta R.T. 0.000 min
Lab File: 2A166320.D
Acq: 11 Mar 2016 7:07 pm

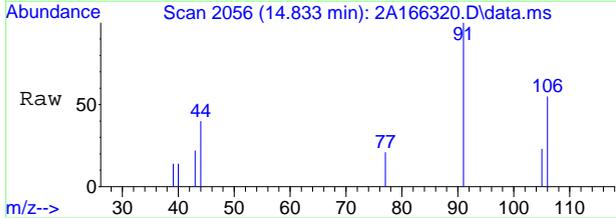
Tgt Ion	Resp	Lower	Upper
112	1971	100	
77	69.9	26.6	86.6
114	33.5	2.2	62.2



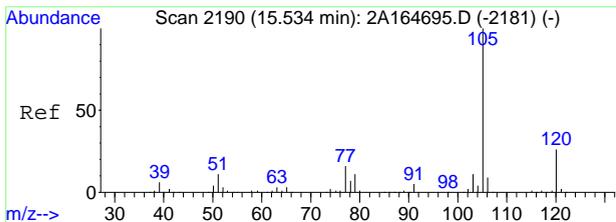
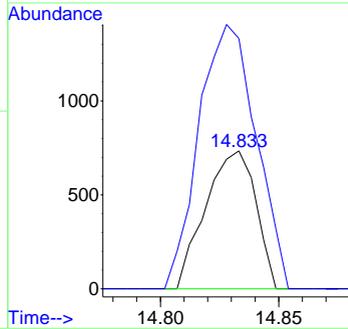
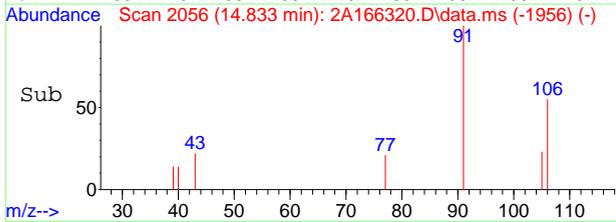
7.1.1
7



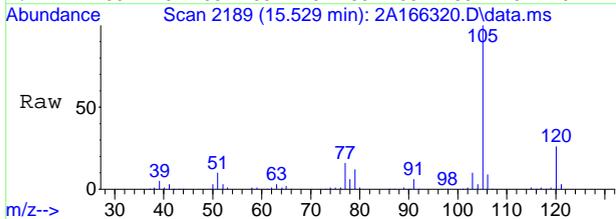
#94
 m,p-xylene
 Concen: 0.29 ug/L
 RT: 14.833 min Scan# 2056
 Delta R.T. 0.005 min
 Lab File: 2A166320.D
 Acq: 11 Mar 2016 7:07 pm



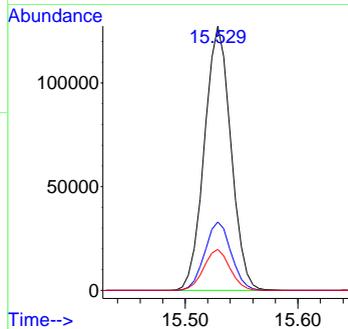
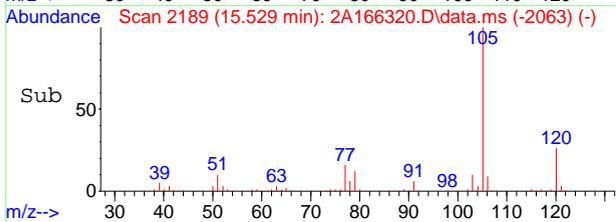
Tgt Ion:106 Resp: 1086
 Ion Ratio Lower Upper
 106 100
 91 181.5 171.4 231.4



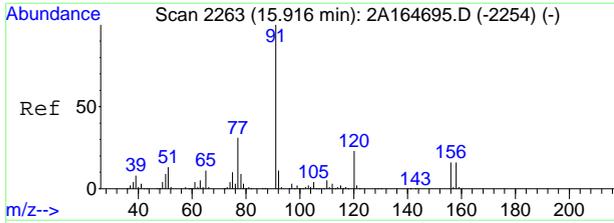
#99
 isopropylbenzene
 Concen: 21.60 ug/L
 RT: 15.529 min Scan# 2189
 Delta R.T. 0.000 min
 Lab File: 2A166320.D
 Acq: 11 Mar 2016 7:07 pm



Tgt Ion:105 Resp: 208043
 Ion Ratio Lower Upper
 105 100
 120 25.9 0.0 56.0
 77 15.5 0.0 45.1

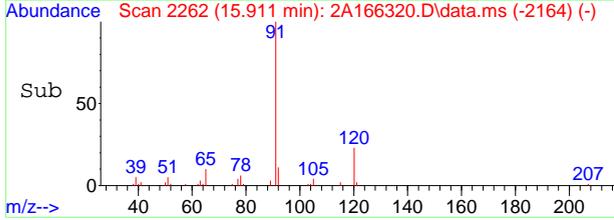
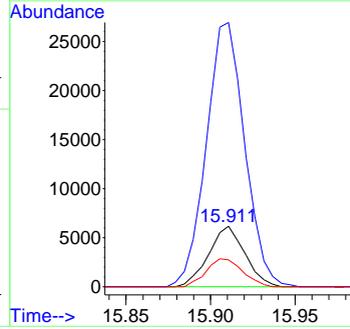
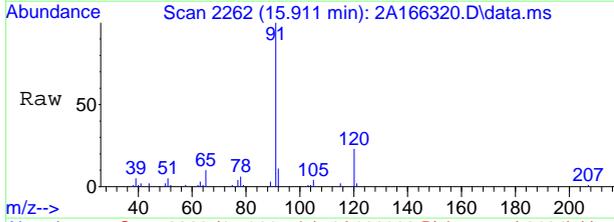


7.1.1
 7



#106
 n-propylbenzene
 Concen: 3.66 ug/L
 RT: 15.911 min Scan# 2262
 Delta R.T. 0.000 min
 Lab File: 2A166320.D
 Acq: 11 Mar 2016 7:07 pm

Tgt Ion	Ratio	Lower	Upper
120	100		
91	436.5	409.5	469.5
65	44.4	13.7	73.7



7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166321.D
 Acq On : 11 Mar 2016 7:37 pm
 Operator : tracyk
 Sample : jc15796-2
 Misc : MS99488,V2A7072,5.0,,,,50
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 10:07:19 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

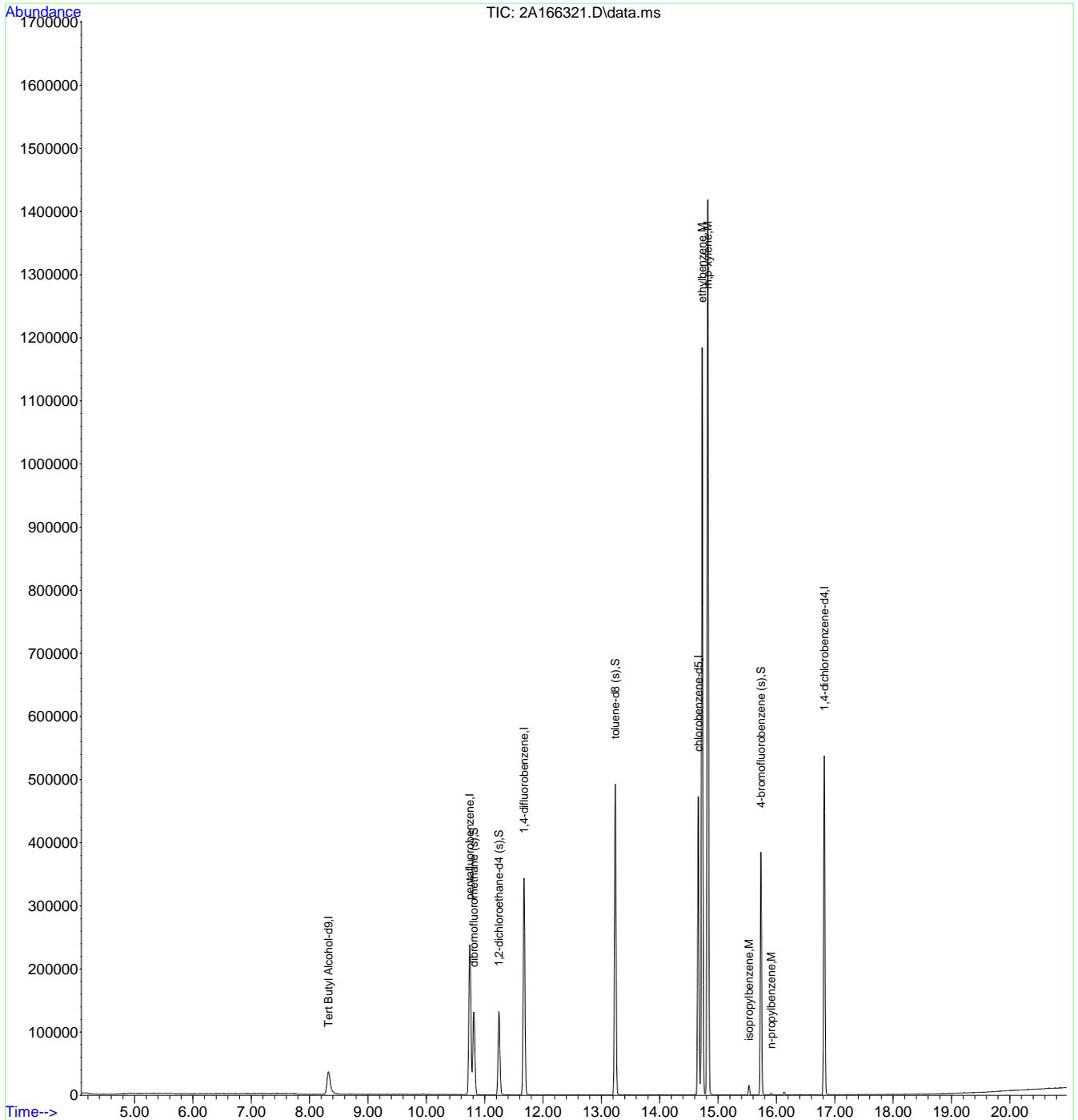
Internal Standards						
1) Tert Butyl Alcohol-d9	8.322	65	95298	500.00	ug/L	0.00
5) pentafluorobenzene	10.743	168	221482	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.674	114	316038	50.00	ug/L	0.00
84) chlorobenzene-d5	14.661	117	264081	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.821	152	142904	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.811	113	97776	49.93	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	99.86%
47) 1,2-dichloroethane-d4 (s)	11.245	65	105223	52.17	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	104.34%
76) toluene-d8 (s)	13.238	98	341863	49.77	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.54%
100) 4-bromofluorobenzene (s)	15.733	95	125564	49.98	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	99.96%
Target Compounds						
93) ethylbenzene	14.729	91	862256	88.43	ug/L	99
94) m,p-xylene	14.823	106	411044	111.81	ug/L	100
99) isopropylbenzene	15.529	105	11384	1.18	ug/L	94
106) n-propylbenzene	15.911	120	531	0.21	ug/L #	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

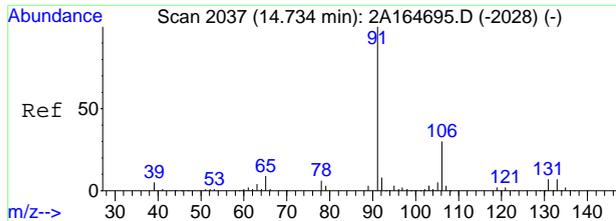
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166321.D
 Acq On : 11 Mar 2016 7:37 pm
 Operator : tracyk
 Sample : jcl15796-2
 Misc : MS99488,V2A7072,5.0,,,,,50
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 10:07:19 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

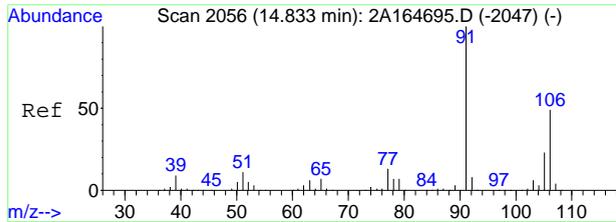
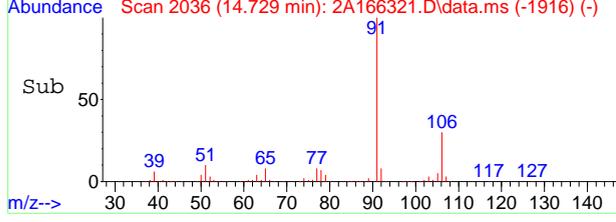
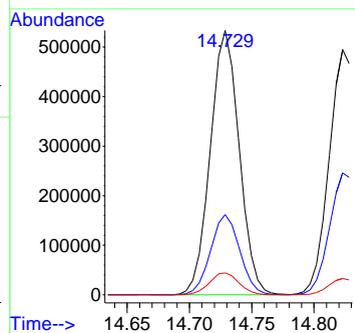
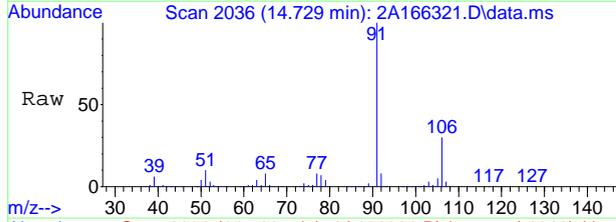


7.1.2
7



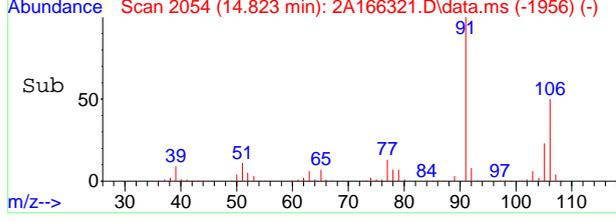
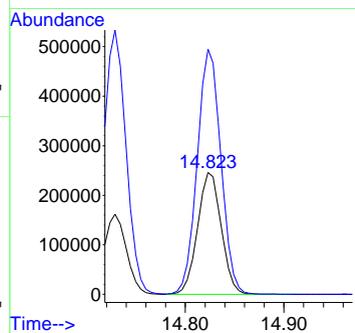
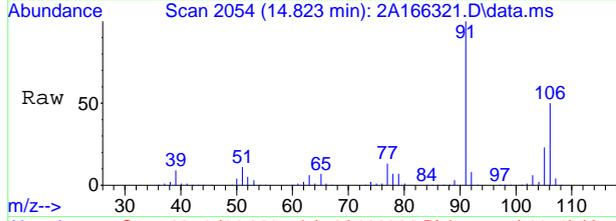
#93
ethylbenzene
Concen: 88.43 ug/L
RT: 14.729 min Scan# 2036
Delta R.T. 0.000 min
Lab File: 2A166321.D
Acq: 11 Mar 2016 7:37 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
106	30.3	0.7	60.7
65	8.3	0.0	38.3

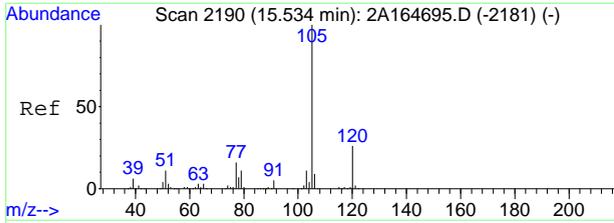


#94
m,p-xylene
Concen: 111.81 ug/L
RT: 14.823 min Scan# 2054
Delta R.T. -0.005 min
Lab File: 2A166321.D
Acq: 11 Mar 2016 7:37 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	201.1	171.4	231.4

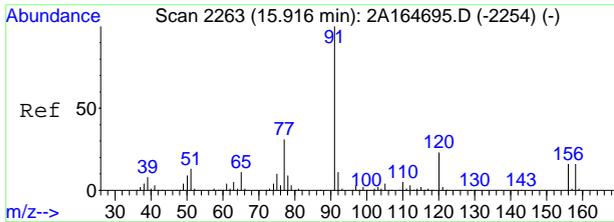
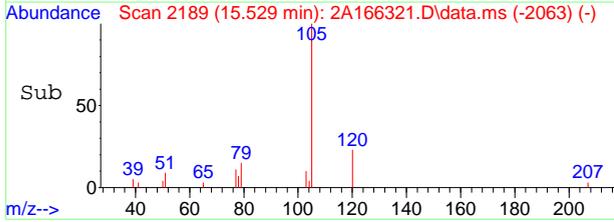
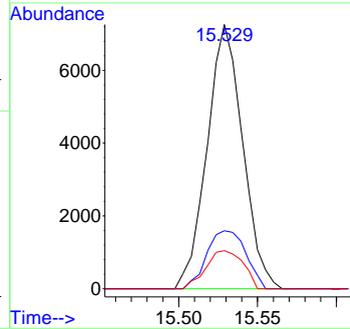
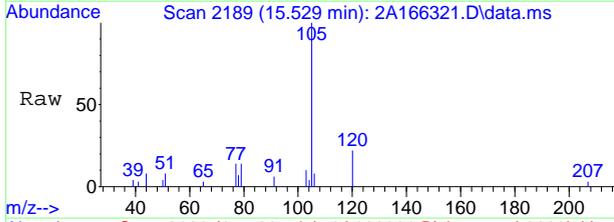


7.12
7



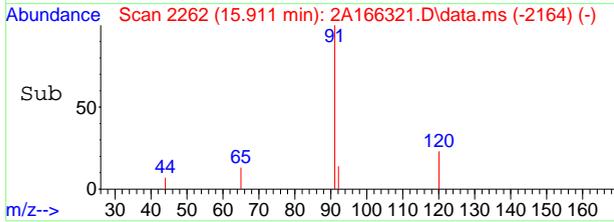
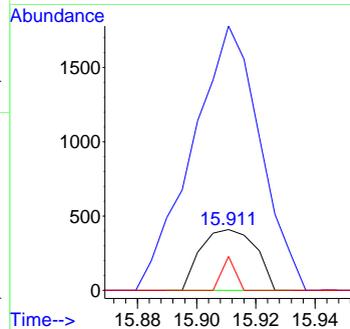
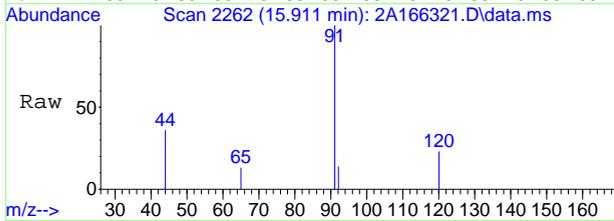
#99
isopropylbenzene
Concen: 1.18 ug/L
RT: 15.529 min Scan# 2189
Delta R.T. 0.000 min
Lab File: 2A166321.D
Acq: 11 Mar 2016 7:37 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	22.0	0.0	56.0
77	14.5	0.0	45.1



#106
n-propylbenzene
Concen: 0.21 ug/L
RT: 15.911 min Scan# 2262
Delta R.T. 0.000 min
Lab File: 2A166321.D
Acq: 11 Mar 2016 7:37 pm

Tgt Ion	Ratio	Lower	Upper
120	100		
91	373.8	409.5	469.5#
65	56.0	13.7	73.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166388.D
 Acq On : 14 Mar 2016 4:23 pm
 Operator : tracyk
 Sample : jc15796-2
 Misc : MS99488,V2A7074,5.0,,,,10
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 15 11:03:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

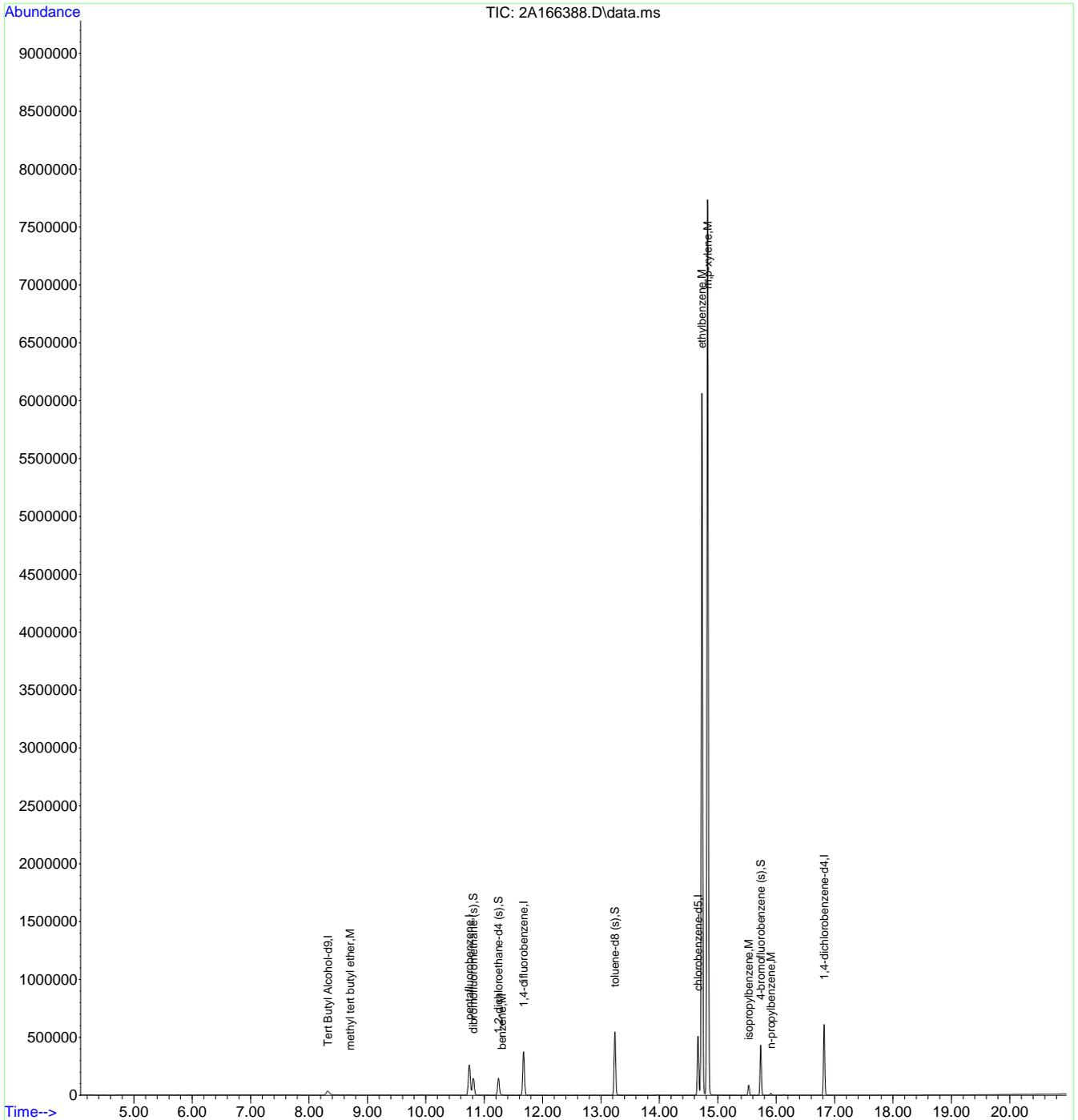
Internal Standards							
1) Tert Butyl Alcohol-d9	8.322	65	88247	500.00	ug/L	0.00	
5) pentafluorobenzene	10.743	168	238728	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	342539	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	285003	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	160812	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.811	113	108311	51.32	ug/L	0.00	
Spiked Amount	50.000	Range 76 - 120	Recovery	=	102.64%		
47) 1,2-dichloroethane-d4 (s)	11.245	65	116095	53.40	ug/L	0.00	
Spiked Amount	50.000	Range 73 - 122	Recovery	=	106.80%		
76) toluene-d8 (s)	13.238	98	374535	50.30	ug/L	0.00	
Spiked Amount	50.000	Range 84 - 119	Recovery	=	100.60%		
100) 4-bromofluorobenzene (s)	15.733	95	137723	48.71	ug/L	0.00	
Spiked Amount	50.000	Range 78 - 117	Recovery	=	97.42%		
Target Compounds							
28) methyl tert butyl ether	8.703	73	4088	0.59	ug/L		Qvalue 98
60) benzene	11.303	78	4420	0.44	ug/L		99
93) ethylbenzene	14.729	91	4365102	414.82	ug/L		99
94) m,p-xylene	14.828	106	2282829	575.40	ug/L		95
99) isopropylbenzene	15.529	105	61945	5.73	ug/L		98
106) n-propylbenzene	15.911	120	3227	1.14	ug/L		94

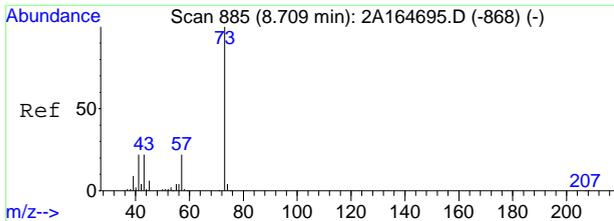
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166388.D
 Acq On : 14 Mar 2016 4:23 pm
 Operator : tracyk
 Sample : jc15796-2
 Misc : MS99488,V2A7074,5.0,,,,,10
 ALS Vial : 15 Sample Multiplier: 1

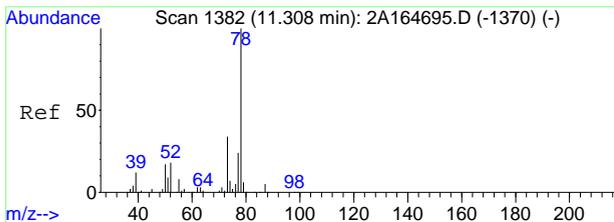
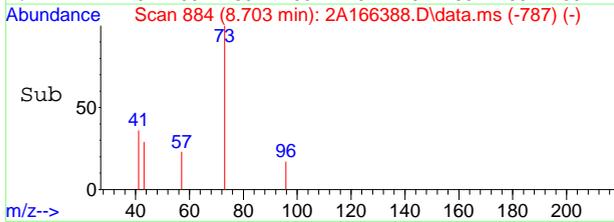
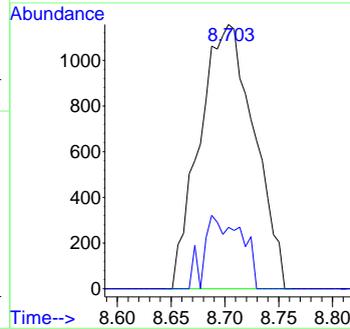
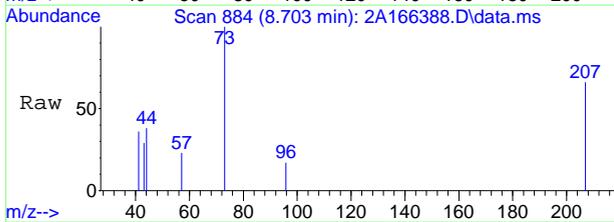
Quant Time: Mar 15 11:03:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration





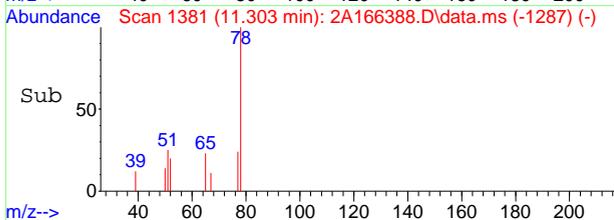
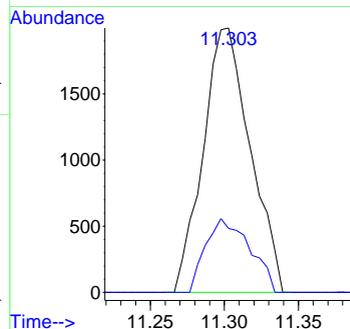
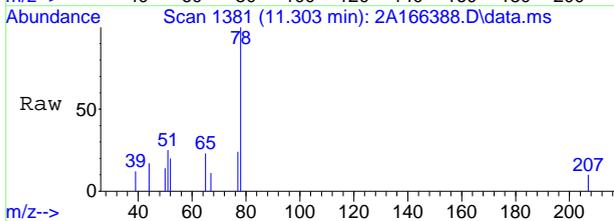
#28
 methyl tert butyl ether
 Concen: 0.59 ug/L
 RT: 8.703 min Scan# 884
 Delta R.T. 0.005 min
 Lab File: 2A166388.D
 Acq: 14 Mar 2016 4:23 pm

Tgt Ion	Ratio	Lower	Upper
73	100		
57	23.2	0.0	48.2

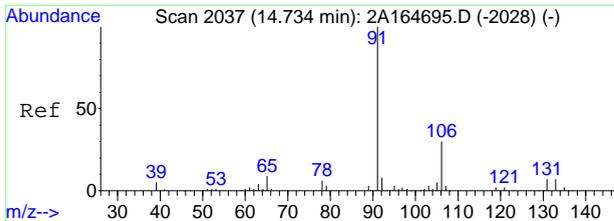


#60
 benzene
 Concen: 0.44 ug/L
 RT: 11.303 min Scan# 1381
 Delta R.T. 0.000 min
 Lab File: 2A166388.D
 Acq: 14 Mar 2016 4:23 pm

Tgt Ion	Ratio	Lower	Upper
78	100		
77	24.2	0.0	53.6



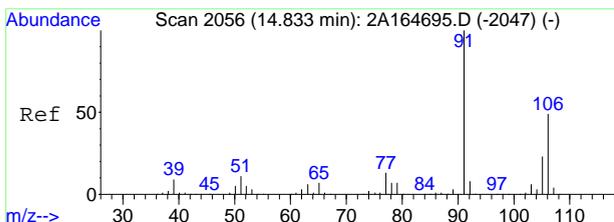
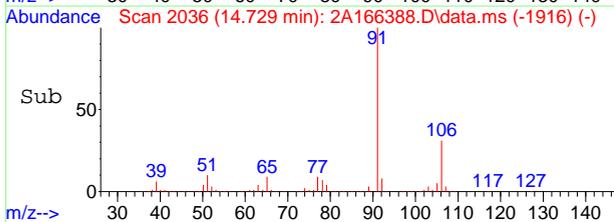
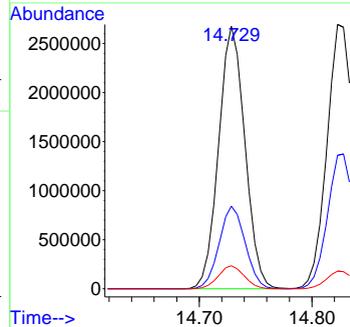
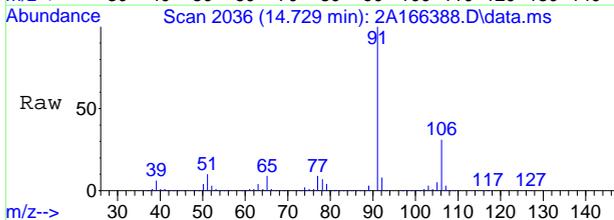
7.1.3
7



#93
ethylbenzene
Concen: 414.82 ug/L
RT: 14.729 min Scan# 2036
Delta R.T. 0.000 min
Lab File: 2A166388.D
Acq: 14 Mar 2016 4:23 pm

Tgt Ion: 91 Resp: 4365102

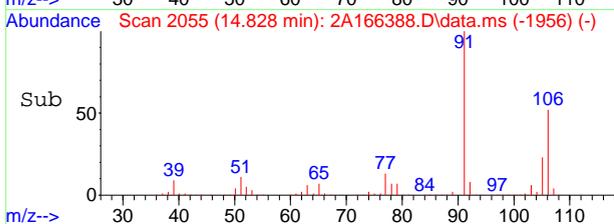
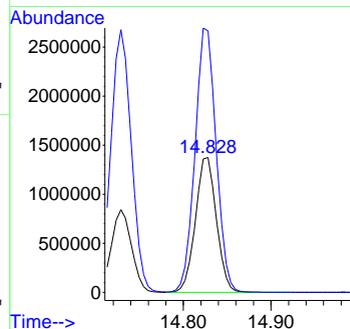
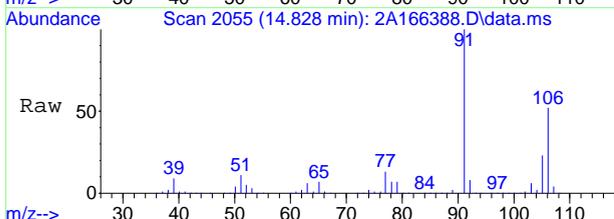
Ion	Ratio	Lower	Upper
91	100		
106	31.5	0.7	60.7
65	8.8	0.0	38.3



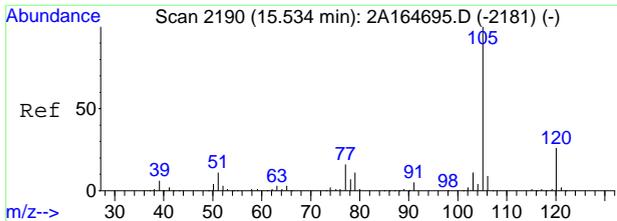
#94
m,p-xylene
Concen: 575.40 ug/L
RT: 14.828 min Scan# 2055
Delta R.T. 0.000 min
Lab File: 2A166388.D
Acq: 14 Mar 2016 4:23 pm

Tgt Ion: 106 Resp: 2282829

Ion	Ratio	Lower	Upper
106	100		
91	193.9	171.4	231.4

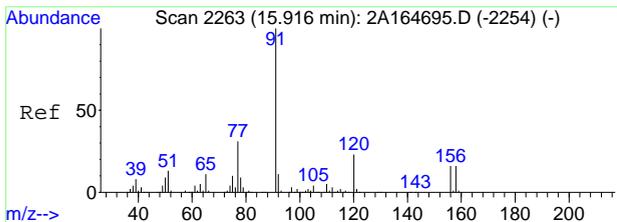
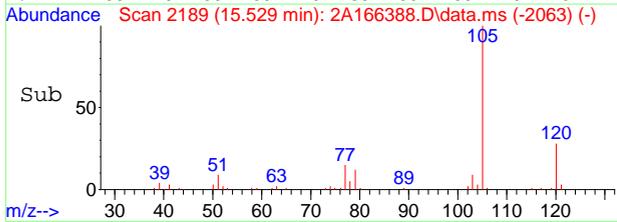
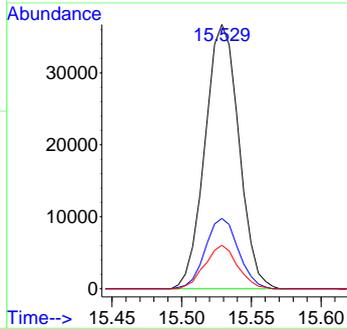
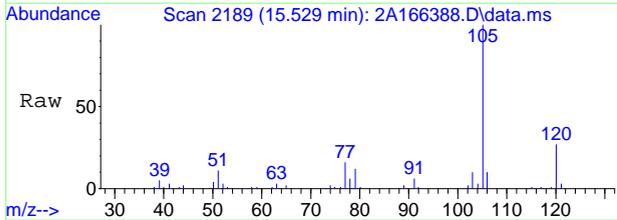


7.1.3
7



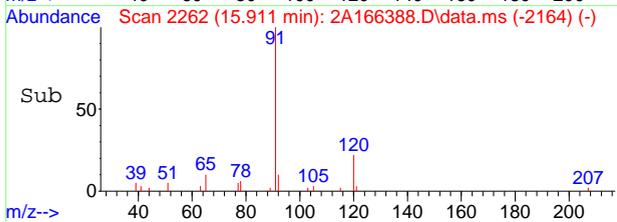
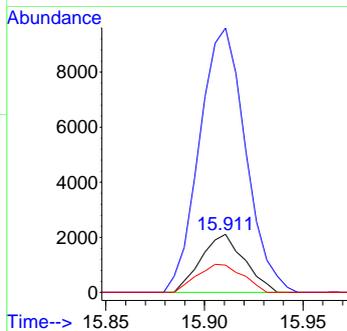
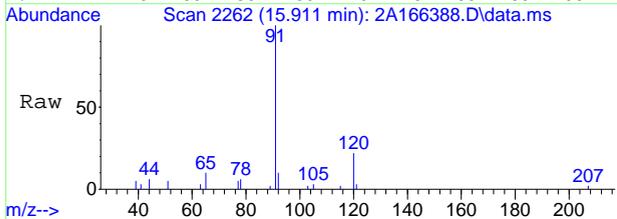
#99
isopropylbenzene
Concen: 5.73 ug/L
RT: 15.529 min Scan# 2189
Delta R.T. 0.000 min
Lab File: 2A166388.D
Acq: 14 Mar 2016 4:23 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.6	0.0	56.0
77	16.5	0.0	45.1



#106
n-propylbenzene
Concen: 1.14 ug/L
RT: 15.911 min Scan# 2262
Delta R.T. 0.000 min
Lab File: 2A166388.D
Acq: 14 Mar 2016 4:23 pm

Tgt Ion	Ratio	Lower	Upper
120	100		
91	454.9	409.5	469.5
65	46.8	13.7	73.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166318.D
 Acq On : 11 Mar 2016 6:07 pm
 Operator : tracyk
 Sample : jc15796-3
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 10:05:55 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Tert Butyl Alcohol-d9	8.322	65	99698	500.00	ug/L	0.00
5) pentafluorobenzene	10.749	168	232739	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.674	114	331326	50.00	ug/L	0.00
84) chlorobenzene-d5	14.661	117	276195	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.821	152	149332	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.811	113	103049	50.08	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	100.16%
47) 1,2-dichloroethane-d4 (s)	11.245	65	109306	51.57	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	103.14%
76) toluene-d8 (s)	13.238	98	357596	49.65	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.30%
100) 4-bromofluorobenzene (s)	15.733	95	130257	49.62	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	99.24%

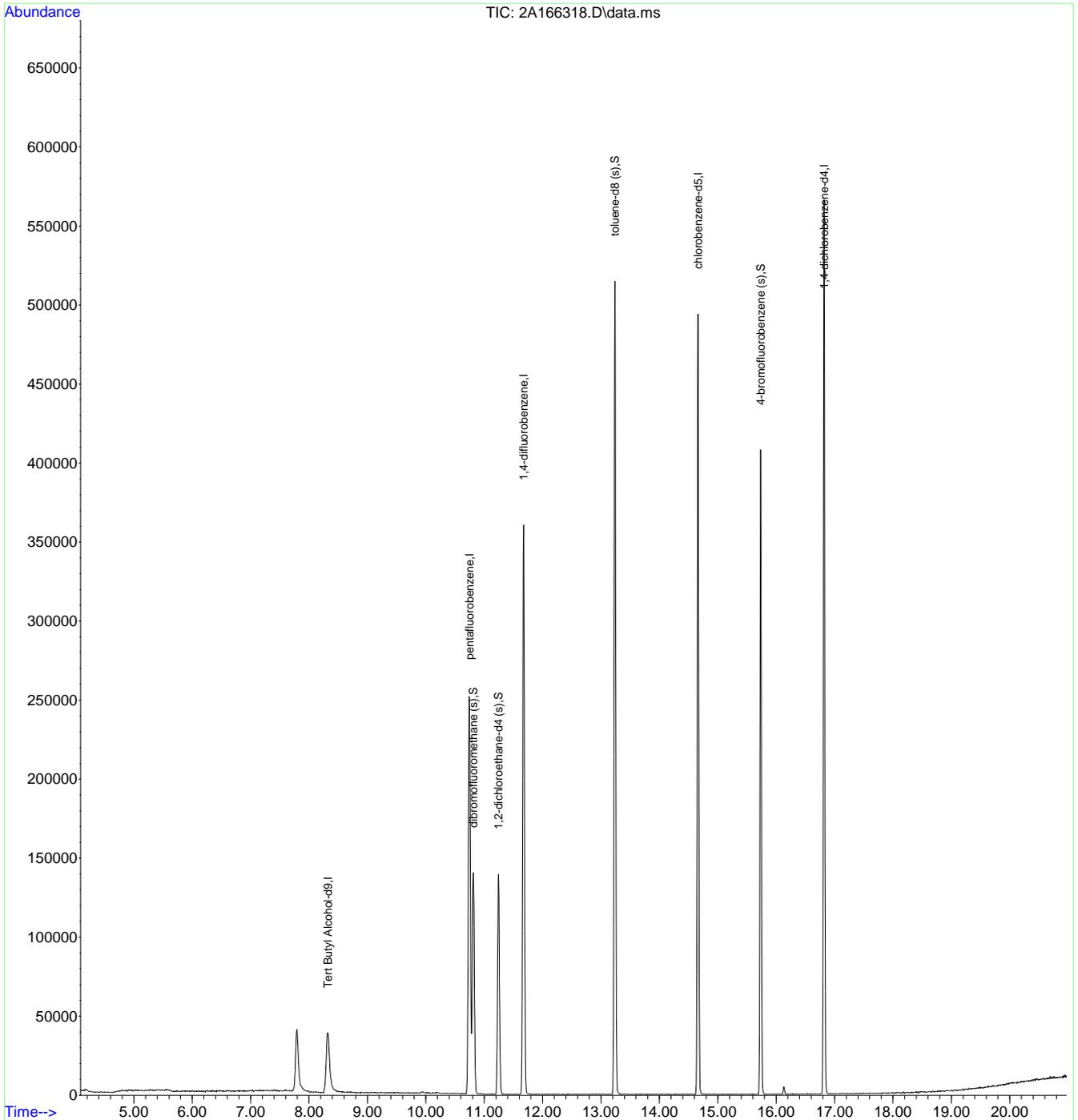
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166318.D
 Acq On : 11 Mar 2016 6:07 pm
 Operator : tracyk
 Sample : jc15796-3
 Misc : MS99488,V2A7072,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 10:05:55 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.1.4
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166319.D
 Acq On : 11 Mar 2016 6:37 pm
 Operator : tracyk
 Sample : jc15796-4
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 10:06:09 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Tert Butyl Alcohol-d9	8.327	65	102136	500.00	ug/L	0.00
5) pentafluorobenzene	10.748	168	228691	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.674	114	326206	50.00	ug/L	0.00
84) chlorobenzene-d5	14.661	117	275493	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.821	152	147616	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.816	113	101707	50.30	ug/L	0.00
Spiked Amount	50.000	Range 76 - 120	Recovery	=	100.60%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	107881	51.80	ug/L	0.00
Spiked Amount	50.000	Range 73 - 122	Recovery	=	103.60%	
76) toluene-d8 (s)	13.238	98	354558	50.01	ug/L	0.00
Spiked Amount	50.000	Range 84 - 119	Recovery	=	100.02%	
100) 4-bromofluorobenzene (s)	15.733	95	129167	49.77	ug/L	0.00
Spiked Amount	50.000	Range 78 - 117	Recovery	=	99.54%	

Target Compounds Qvalue

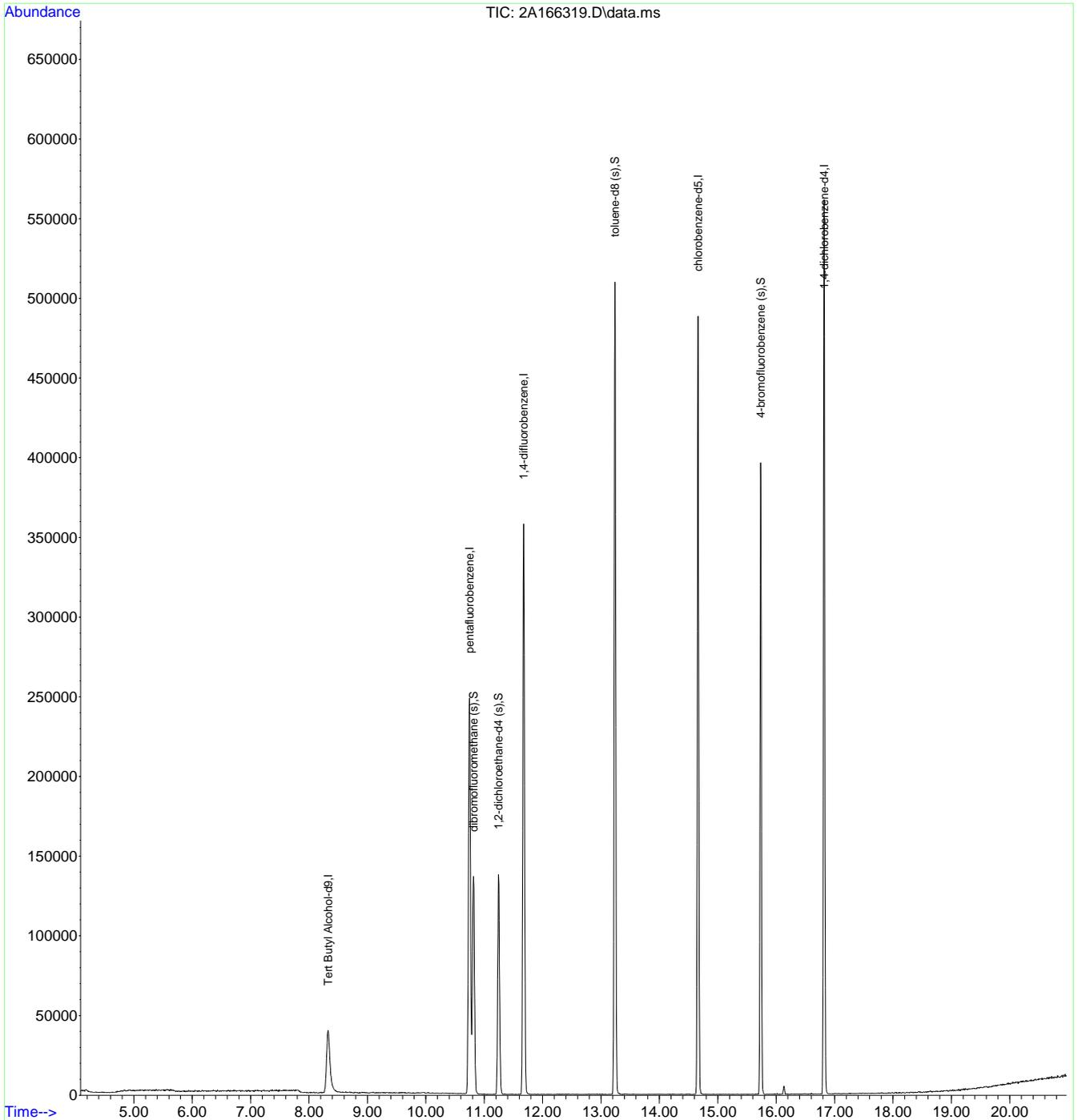
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.15
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166319.D
 Acq On : 11 Mar 2016 6:37 pm
 Operator : tracyk
 Sample : jcl15796-4
 Misc : MS99488,V2A7072,5.0,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 10:06:09 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.15
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166306.D
 Acq On : 11 Mar 2016 12:06 pm
 Operator : tracyk
 Sample : mb1
 Misc : MS99332,V2A7072,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 09:54:13 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Tert Butyl Alcohol-d9	8.327	65	102724	500.00	ug/L	0.00
5) pentafluorobenzene	10.749	168	226577	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.679	114	324808	50.00	ug/L	0.00
84) chlorobenzene-d5	14.661	117	265556	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.821	152	139812	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.817	113	99030	49.43	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	98.86%
47) 1,2-dichloroethane-d4 (s)	11.245	65	103494	50.16	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	100.32%
76) toluene-d8 (s)	13.238	98	343039	48.59	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	97.18%
100) 4-bromofluorobenzene (s)	15.733	95	123878	50.40	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.80%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

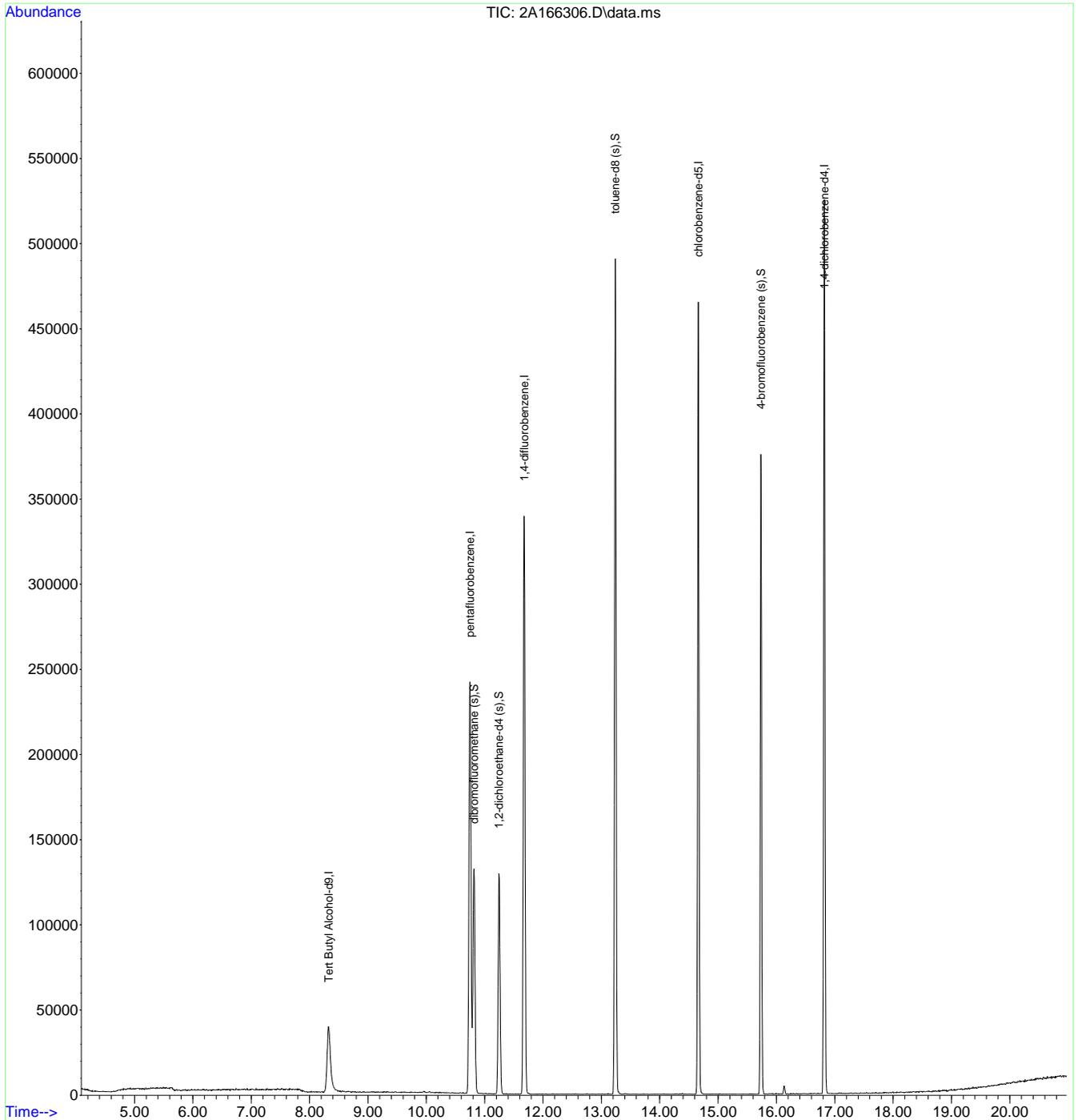
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166306.D
 Acq On : 11 Mar 2016 12:06 pm
 Operator : tracyk
 Sample : mb1
 Misc : MS99332,V2A7072,5.0,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 09:54:13 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.2.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166377.D
 Acq On : 14 Mar 2016 10:58 am
 Operator : tracyk
 Sample : mb1
 Misc : MS99478,V2A7074,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 10:17:19 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Tert Butyl Alcohol-d9	8.322	65	86430	500.00	ug/L	0.00
5) pentafluorobenzene	10.748	168	236114	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.674	114	339893	50.00	ug/L	0.00
84) chlorobenzene-d5	14.661	117	283182	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.821	152	155099	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.811	113	107697	51.59	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	103.18%
47) 1,2-dichloroethane-d4 (s)	11.245	65	113877	52.96	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	105.92%
76) toluene-d8 (s)	13.238	98	367824	49.79	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.58%
100) 4-bromofluorobenzene (s)	15.733	95	133496	48.96	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	97.92%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

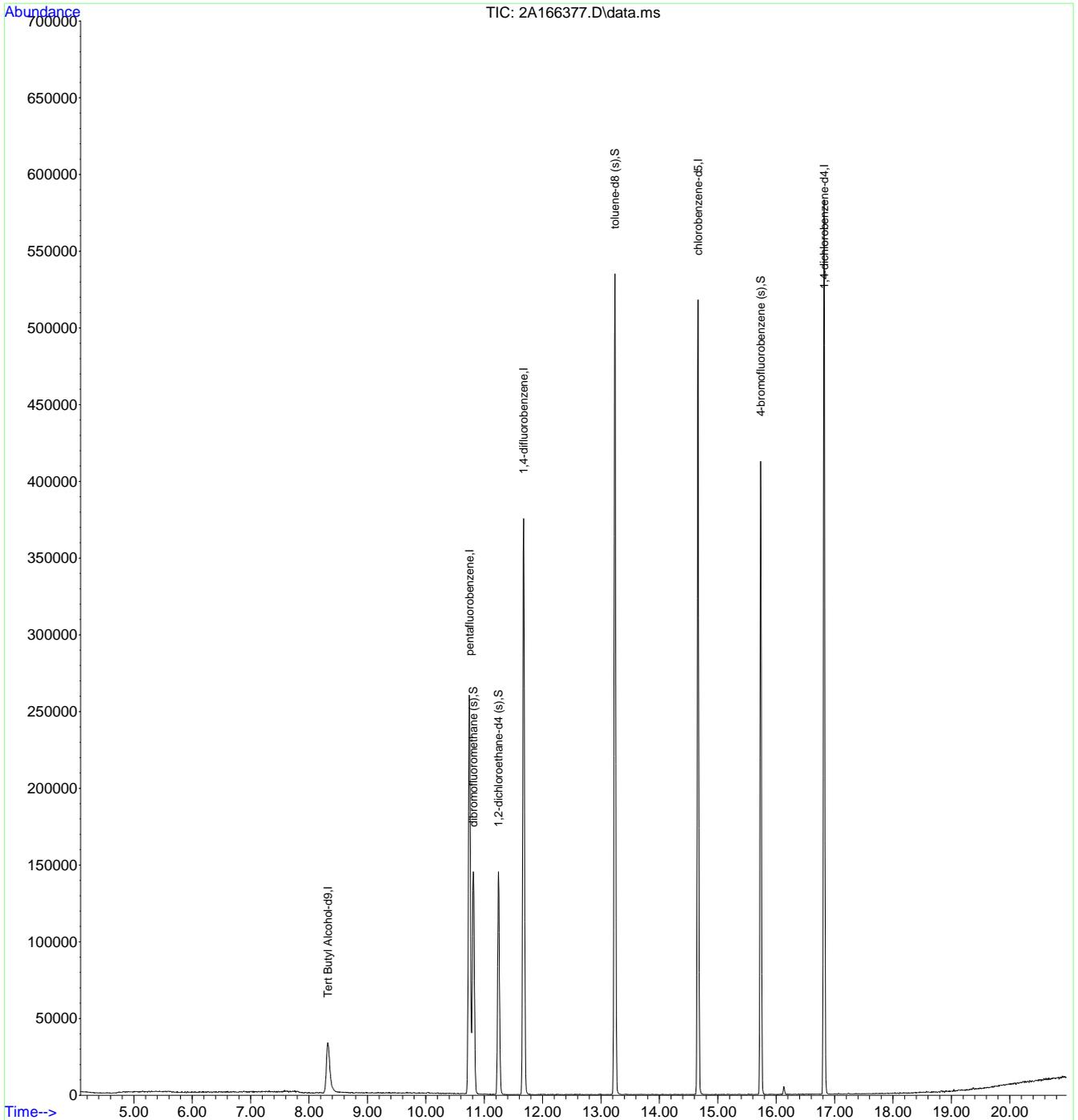
7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166377.D
 Acq On : 14 Mar 2016 10:58 am
 Operator : tracyk
 Sample : mb1
 Misc : MS99478,V2A7074,5.0,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 10:17:19 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.2.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2A7072-7075\
 Data File : 2A166307.D
 Acq On : 11 Mar 2016 12:35 pm
 Operator : tracyk
 Sample : bs
 Misc : MS99332,V2A7072,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 09:54:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Tert Butyl Alcohol-d9	8.322	65	86833	500.00	ug/L	0.00	
5) pentafluorobenzene	10.748	168	206950	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	298632	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	255059	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	136804	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.816	113	91744	50.14	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	100.28%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	97614	51.80	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	103.60%	
76) toluene-d8 (s)	13.238	98	330244	50.88	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	101.76%	
100) 4-bromofluorobenzene (s)	15.733	95	120614	50.15	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.30%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.463	59	65852	221.31	ug/L		97
3) Ethanol	6.878	45	80115	5736.06	ug/L		100
4) 1,4-dioxane	12.380	88	22243	1368.96	ug/L		95
7) chlorodifluoromethane	4.326	51	114160	43.66	ug/L		99
8) dichlorodifluoromethane	4.300	85	102139	49.06	ug/L		99
10) chloromethane	4.755	50	152901	44.71	ug/L		98
11) vinyl chloride	5.048	62	140043	46.90	ug/L		99
12) bromomethane	5.816	94	87716	49.62	ug/L		99
13) chloroethane	5.999	64	80048	48.52	ug/L		98
14) trichlorofluoromethane	6.486	101	140884	49.18	ug/L		98
16) ethyl ether	7.014	74	59103	49.54	ug/L		98
18) acrolein	7.338	56	237753	497.52	ug/L		99
19) 1,1-dichloroethene	7.500	61	158560	50.49	ug/L		99
20) acetone	7.595	43	28602	46.71	ug/L		97
21) allyl chloride	8.128	76	64032	49.36	ug/L		96
22) acetonitrile	8.123	40	88975	492.33	ug/L		92
23) iodomethane	7.830	142	174905	47.12	ug/L		99
24) iso-butyl alcohol	11.308	74	35102	505.27	ug/L	#	85
25) carbon disulfide	7.961	76	332649	47.63	ug/L		98
26) methylene chloride	8.353	84	113536	48.61	ug/L		98
27) methyl acetate	8.123	74	15220	47.66	ug/L		95
28) methyl tert butyl ether	8.698	73	598255	100.12	ug/L		93
29) trans-1,2-dichloroethene	8.756	61	153154	49.21	ug/L		97
30) di-isopropyl ether	9.357	45	386559	48.34	ug/L		94
31) 2-butanone	10.178	72	11346	51.20	ug/L	#	85
32) 1,1-dichloroethane	9.404	63	199653	49.39	ug/L		99
33) chloroprene	9.504	53	145362	44.98	ug/L		98
34) acrylonitrile	8.745	53	194375	259.51	ug/L		97
35) vinyl acetate	9.389	86	17985	49.58	ug/L		85
36) ethyl tert-butyl ether	9.865	59	348825	50.74	ug/L		99
37) ethyl acetate	10.184	45	14131	49.37	ug/L	#	52
38) 2,2-dichloropropane	10.194	77	155669	50.73	ug/L		97
39) cis-1,2-dichloroethene	10.205	96	120966	47.01	ug/L		96
40) methylacrylate	10.273	85	15181	52.53	ug/L	#	94
41) propionitrile	10.304	54	144625	526.71	ug/L		95
42) bromochloromethane	10.544	128	57623	49.80	ug/L		99
43) tetrahydrofuran	10.576	42	34088	51.15	ug/L		97
44) chloroform	10.602	85	124867	49.59	ug/L		99
45) t-butyl formate	10.623	59	51238	39.84	ug/L		91
48) freon 113	7.464	151	69710	50.22	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166307.D
 Acq On : 11 Mar 2016 12:35 pm
 Operator : tracyk
 Sample : bs
 Misc : MS99332,V2A7072,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 09:54:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.487	41	64398	50.48	ug/L	99
50) 1,1,1-trichloroethane	10.848	97	154354	50.72	ug/L	96
51) Cyclohexane	10.905	84	150752	50.81	ug/L	98
53) epichlorohydrin	12.898	57	39793	271.74	ug/L	95
54) n-butyl alcohol	11.815	56	144541	2720.57	ug/L	98
55) carbon tetrachloride	11.052	117	141739	50.23	ug/L	98
56) 1,1-dichloropropene	11.031	75	148399	52.34	ug/L	98
57) hexane	9.070	57	111947	40.09	ug/L	98
59) 2,2,4-TRIMETHYLPENTANE	11.271	57	367082	50.47	ug/L	98
60) benzene	11.303	78	431331	49.57	ug/L	100
61) tert-amyl methyl ether	11.324	87	71040	52.97	ug/L	91
62) heptane	11.444	57	74233	49.45	ug/L	99
63) isopropyl acetate	11.224	43	262411	52.37	ug/L	99
64) 1,2-dichloroethane	11.334	62	136335	52.07	ug/L	100
66) trichloroethene	12.004	95	107388	49.44	ug/L	98
68) methyl methacrylate	12.260	100	25050	52.66	ug/L	97
69) 2-nitropropane	12.767	41	24504	55.74	ug/L	97
70) 2-chloroethyl vinyl ether	12.767	63	78694	284.86	ug/L	99
71) 1,2-dichloropropane	12.270	63	114829	49.68	ug/L	97
72) dibromomethane	12.433	93	64700	51.90	ug/L	95
73) methylcyclohexane	12.197	83	153607	46.91	ug/L	99
74) bromodichloromethane	12.548	83	144197	49.88	ug/L	98
75) cis-1,3-dichloropropene	12.977	75	184611	51.58	ug/L	97
77) 4-methyl-2-pentanone	13.060	58	36860	52.59	ug/L #	85
78) toluene	13.306	92	249947	49.74	ug/L	99
79) 3-methyl-1-butanol	13.081	55	88758	1079.36	ug/L	97
80) trans-1,3-dichloropropene	13.505	75	160180	50.96	ug/L	99
81) ethyl methacrylate	13.479	69	124139	52.01	ug/L	100
82) 1,1,2-trichloroethane	13.709	83	76582	49.78	ug/L	99
83) 2-hexanone	13.855	58	33159	53.77	ug/L	98
85) tetrachloroethene	13.855	164	91679	50.87	ug/L	98
86) 1,3-dichloropropane	13.881	76	150344	51.54	ug/L	98
87) butyl acetate	13.913	56	60913	55.14	ug/L	96
88) 3,3-dimethyl-1-butanol	14.017	57	90128	531.61	ug/L	99
89) dibromochloromethane	14.132	129	110484	50.74	ug/L	97
90) 1,2-dibromoethane	14.274	107	93389	51.35	ug/L	97
91) chlorobenzene	14.692	112	282982	50.58	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.744	131	108293	50.18	ug/L	98
93) ethylbenzene	14.729	91	465455	49.43	ug/L	100
94) m,p-xylene	14.828	106	357343	100.65	ug/L	99
95) o-xylene	15.220	106	182720	51.44	ug/L	99
96) styrene	15.231	104	308365	50.63	ug/L	100
97) bromoform	15.498	173	77840	52.83	ug/L	99
99) isopropylbenzene	15.529	105	457191	49.69	ug/L	100
101) cyclohexanone	15.717	98	12289	446.03	ug/L	96
102) bromobenzene	15.921	156	131453	50.45	ug/L	98
103) 1,1,2,2-tetrachloroethane	15.838	83	116851	50.17	ug/L	97
104) trans-1,4-dichloro-2-b...	15.869	53	32514	55.73	ug/L	96
105) 1,2,3-trichloropropane	15.905	110	27843	49.90	ug/L	95
106) n-propylbenzene	15.911	120	123480	51.40	ug/L	94
107) 2-chlorotoluene	16.057	126	116720	49.17	ug/L	97
108) 4-chlorotoluene	16.151	126	122077	51.04	ug/L	99
109) 1,3,5-trimethylbenzene	16.047	105	388566	49.79	ug/L	99
110) tert-butylbenzene	16.371	119	335784	50.32	ug/L	98
111) pentachloroethane	16.465	167	81798	50.54	ug/L	99
112) 1,2,4-trimethylbenzene	16.413	105	400094	50.42	ug/L	99
113) sec-butylbenzene	16.570	105	485181	48.84	ug/L	99
114) 1,3-dichlorobenzene	16.768	146	241865	49.06	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166307.D
 Acq On : 11 Mar 2016 12:35 pm
 Operator : tracyk
 Sample : bs
 Misc : MS99332,V2A7072,5.0,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 09:54:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

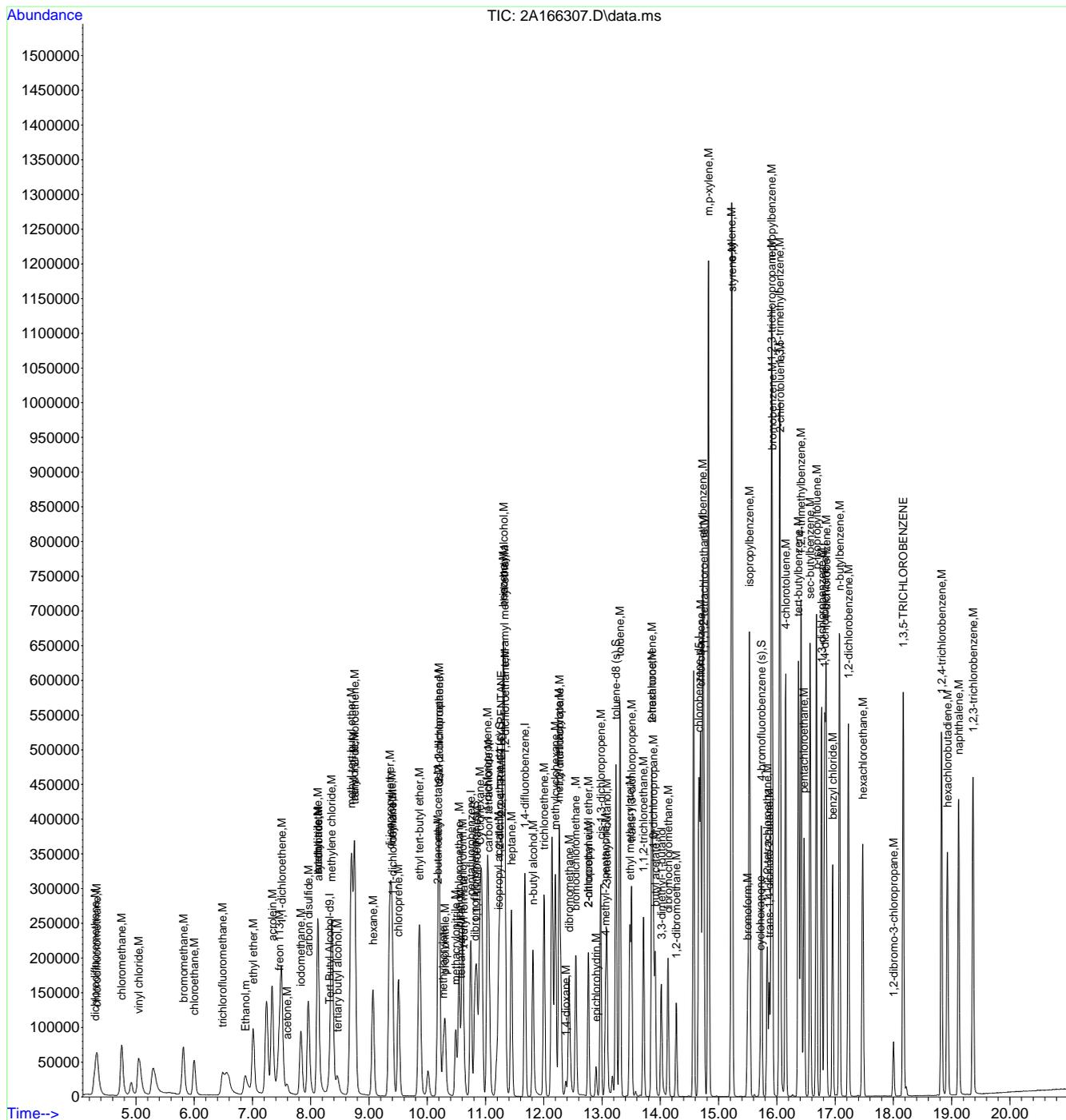
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) p-isopropyltoluene	16.680	119	425656	50.41	ug/L	100
116) 1,4-dichlorobenzene	16.847	146	247077	49.94	ug/L	99
117) 1,2-dichlorobenzene	17.229	146	238768	50.50	ug/L	98
118) benzyl chloride	16.957	91	239009	56.86	ug/L	99
119) n-butylbenzene	17.077	92	220623	49.44	ug/L	98
120) 1,2-dibromo-3-chloropr...	18.003	75	20083	51.07	ug/L	94
121) 1,3,5-TRICHLOROBENZENE	18.170	180	217191	51.57	ug/L	100
122) 1,2,4-trichlorobenzene	18.829	180	196193	51.17	ug/L	98
123) hexachlorobutadiene	18.929	225	92912	50.15	ug/L	100
124) naphthalene	19.122	128	369222	50.25	ug/L	99
125) 1,2,3-trichlorobenzene	19.368	180	173659	51.04	ug/L	98
126) hexachloroethane	17.475	201	80547	51.51	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166307.D
 Acq On : 11 Mar 2016 12:35 pm
 Operator : tracyk
 Sample : bs
 Misc : MS99332,V2A7072,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 09:54:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.3.1
 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166378.D
 Acq On : 14 Mar 2016 11:27 am
 Operator : tracyk
 Sample : bs
 Misc : MS99478,V2A7074,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 10:17:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Tert Butyl Alcohol-d9	8.327	65	89379	500.00	ug/L	0.00	
5) pentafluorobenzene	10.743	168	232736	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	338480	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	283170	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	162023	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.811	113	106305	51.66	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	103.32%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	113703	53.65	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	107.30%	
76) toluene-d8 (s)	13.238	98	369974	50.29	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	100.58%	
100) 4-bromofluorobenzene (s)	15.733	95	136342	47.87	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	95.74%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.458	59	60409	197.23	ug/L		93
3) Ethanol	6.873	45	91627	6435.93	ug/L		99
4) 1,4-dioxane	12.375	88	23433	1401.12	ug/L		96
7) chlorodifluoromethane	4.336	51	144263	49.06	ug/L		99
8) dichlorodifluoromethane	4.294	85	128897	55.06	ug/L		95
10) chloromethane	4.755	50	179492	46.67	ug/L		99
11) vinyl chloride	5.048	62	157146	46.79	ug/L		99
12) bromomethane	5.811	94	96640	48.61	ug/L		99
13) chloroethane	6.005	64	87840	47.34	ug/L		99
14) trichlorofluoromethane	6.496	101	161333	50.08	ug/L		99
16) ethyl ether	7.014	74	60029	44.74	ug/L		96
18) acrolein	7.338	56	236859	440.73	ug/L		98
19) 1,1-dichloroethene	7.500	61	171345	48.51	ug/L		97
20) acetone	7.589	43	31008	45.03	ug/L		100
21) allyl chloride	8.128	76	64001	43.87	ug/L		92
22) acetonitrile	8.118	40	101214	498.00	ug/L		94
23) iodomethane	7.830	142	182547	43.73	ug/L		97
24) iso-butyl alcohol	11.308	74	38227	489.29	ug/L	#	66
25) carbon disulfide	7.956	76	347504	44.24	ug/L		97
26) methylene chloride	8.353	84	122451	46.62	ug/L		96
27) methyl acetate	8.123	74	16527	46.02	ug/L		99
28) methyl tert butyl ether	8.698	73	659491	98.14	ug/L		93
29) trans-1,2-dichloroethene	8.761	61	172115	49.17	ug/L		98
30) di-isopropyl ether	9.352	45	450861	50.14	ug/L		98
31) 2-butanone	10.178	72	12071	48.44	ug/L	#	63
32) 1,1-dichloroethane	9.399	63	222057	48.84	ug/L		99
33) chloroprene	9.509	53	170848	47.01	ug/L		98
34) acrylonitrile	8.745	53	208644	247.69	ug/L		99
35) vinyl acetate	9.383	86	21244	52.08	ug/L		69
36) ethyl tert-butyl ether	9.865	59	400067	51.75	ug/L		100
37) ethyl acetate	10.189	45	15613	48.50	ug/L		98
38) 2,2-dichloropropane	10.194	77	181512	52.59	ug/L		97
39) cis-1,2-dichloroethene	10.205	96	132818	45.90	ug/L		92
40) methylacrylate	10.273	85	15662	48.19	ug/L	#	87
41) propionitrile	10.304	54	155002	501.96	ug/L		96
42) bromochloromethane	10.544	128	64926	49.89	ug/L		98
43) tetrahydrofuran	10.576	42	37116	49.52	ug/L		99
44) chloroform	10.602	85	140381	49.57	ug/L		97
45) t-butyl formate	10.623	59	61813	42.74	ug/L		93
48) freon 113	7.469	151	80487	51.56	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2A7072-7075\
 Data File : 2A166378.D
 Acq On : 14 Mar 2016 11:27 am
 Operator : tracyk
 Sample : bs
 Misc : MS99478,V2A7074,5.0,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 10:17:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.487	41	70510	49.15	ug/L	97
50) 1,1,1-trichloroethane	10.848	97	177436	51.84	ug/L	99
51) Cyclohexane	10.905	84	168522	50.51	ug/L	97
53) epichlorohydrin	12.898	57	42305	254.88	ug/L	96
54) n-butyl alcohol	11.810	56	141794	2354.67	ug/L	98
55) carbon tetrachloride	11.052	117	163675	51.17	ug/L	96
56) 1,1-dichloropropene	11.031	75	165089	51.37	ug/L	99
57) hexane	9.064	57	137170	43.34	ug/L	98
58) TERT AMYL ALCOHOL	11.193	73	25850	228.63	ug/L	100
59) 2,2,4-TRIMETHYLPENTANE	11.272	57	438047	53.13	ug/L	98
60) benzene	11.303	78	468736	47.53	ug/L	99
61) tert-amyl methyl ether	11.324	87	81068	53.34	ug/L	98
62) heptane	11.439	57	84508	49.67	ug/L	98
63) isopropyl acetate	11.224	43	296382	52.18	ug/L	99
64) 1,2-dichloroethane	11.334	62	154862	52.18	ug/L	98
66) trichloroethene	12.004	95	118223	48.02	ug/L	97
68) methyl methacrylate	12.260	100	25537	47.37	ug/L #	88
69) 2-nitropropane	12.767	41	28206	56.61	ug/L	96
70) 2-chloroethyl vinyl ether	12.762	63	101797	325.11	ug/L	99
71) 1,2-dichloropropene	12.270	63	127020	48.49	ug/L	98
72) dibromomethane	12.427	93	71161	50.36	ug/L	98
73) methylcyclohexane	12.197	83	181416	48.88	ug/L	100
74) bromodichloromethane	12.548	83	159650	48.73	ug/L	98
75) cis-1,3-dichloropropene	12.977	75	196819	48.52	ug/L	97
77) 4-methyl-2-pentanone	13.060	58	38850	48.90	ug/L #	84
78) toluene	13.306	92	271348	47.64	ug/L	100
79) 3-methyl-1-butanol	13.081	55	82866	889.07	ug/L	97
80) trans-1,3-dichloropropene	13.505	75	174645	49.02	ug/L	98
81) ethyl methacrylate	13.473	69	131627	48.65	ug/L	96
82) 1,1,2-trichloroethane	13.709	83	83423	47.84	ug/L	96
83) 2-hexanone	13.855	58	34261	49.02	ug/L	92
85) tetrachloroethene	13.855	164	101015	50.49	ug/L	98
86) 1,3-dichloropropane	13.881	76	162508	50.18	ug/L	97
87) butyl acetate	13.913	56	65028	53.02	ug/L	98
88) 3,3-dimethyl-1-butanol	14.017	57	83912	445.81	ug/L	98
89) dibromochloromethane	14.127	129	122570	50.70	ug/L	99
90) 1,2-dibromoethane	14.274	107	99762	49.41	ug/L	100
91) chlorobenzene	14.687	112	310205	49.94	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.744	131	123088	51.37	ug/L	99
93) ethylbenzene	14.729	91	513546	49.12	ug/L	100
94) m,p-xylene	14.823	106	393685	99.87	ug/L	100
95) o-xylene	15.220	106	202935	51.46	ug/L	100
96) styrene	15.231	104	338931	50.13	ug/L	99
97) bromoform	15.498	173	85558	52.30	ug/L	98
99) isopropylbenzene	15.529	105	515584	47.31	ug/L	99
101) cyclohexanone	15.717	98	13183	404.00	ug/L	92
102) bromobenzene	15.921	156	147623	47.84	ug/L	98
103) 1,1,2,2-tetrachloroethane	15.832	83	131373	47.62	ug/L	98
104) trans-1,4-dichloro-2-b...	15.869	53	34569	50.03	ug/L	92
105) 1,2,3-trichloropropane	15.906	110	31718	47.99	ug/L	95
106) n-propylbenzene	15.911	120	141081	49.58	ug/L	98
107) 2-chlorotoluene	16.057	126	131941	46.93	ug/L	99
108) 4-chlorotoluene	16.151	126	138818	49.01	ug/L	98
109) 1,3,5-trimethylbenzene	16.041	105	443483	47.98	ug/L	99
110) tert-butylbenzene	16.371	119	390041	49.35	ug/L	99
111) pentachloroethane	16.465	167	98080	51.17	ug/L	100
112) 1,2,4-trimethylbenzene	16.413	105	460212	48.97	ug/L	99
113) sec-butylbenzene	16.570	105	578519	49.17	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166378.D
 Acq On : 14 Mar 2016 11:27 am
 Operator : tracyk
 Sample : bs
 Misc : MS99478,V2A7074,5.0,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 10:17:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

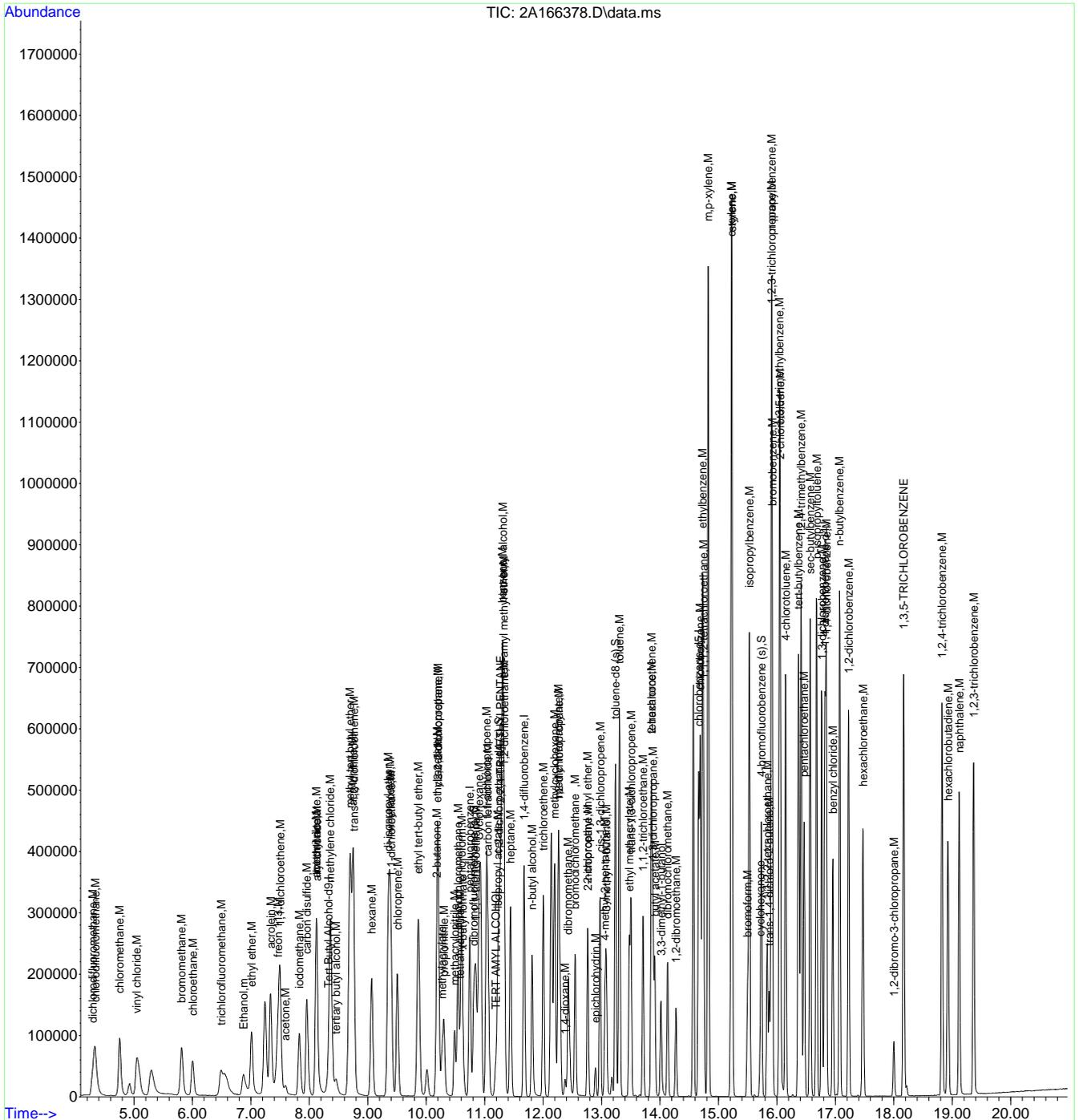
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,3-dichlorobenzene	16.769	146	284468	48.72	ug/L	97
115) p-isopropyltoluene	16.680	119	503143	50.31	ug/L	100
116) 1,4-dichlorobenzene	16.847	146	287483	49.06	ug/L	100
117) 1,2-dichlorobenzene	17.229	146	282371	50.42	ug/L	99
118) benzyl chloride	16.957	91	280226	56.29	ug/L	100
119) n-butylbenzene	17.072	92	265288	50.20	ug/L	98
120) 1,2-dibromo-3-chloropr...	18.003	75	23734	50.96	ug/L	99
121) 1,3,5-TRICHLOROENZENE	18.170	180	255723	51.27	ug/L	99
122) 1,2,4-trichlorobenzene	18.824	180	230953	50.86	ug/L	97
123) hexachlorobutadiene	18.929	225	109542	49.92	ug/L	99
124) naphthalene	19.122	128	427304	49.11	ug/L	100
125) 1,2,3-trichlorobenzene	19.368	180	203469	50.50	ug/L	98
126) hexachloroethane	17.475	201	93848	50.67	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
Data File : 2A166378.D
Acq On : 14 Mar 2016 11:27 am
Operator : tracyk
Sample : bs
Misc : MS99478,V2A7074,5.0,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 10:17:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Sat Mar 12 15:58:04 2016
Response via : Initial Calibration



7.3.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166322.D
 Acq On : 11 Mar 2016 8:06 pm
 Operator : tracyk
 Sample : jc15796-1ms
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 15 10:09:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Tert Butyl Alcohol-d9	8.327	65	87379	500.00	ug/L	0.00	
5) pentafluorobenzene	10.748	168	226849	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	330870	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	277758	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	152131	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.816	113	101371	50.54	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	101.08%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	108897	52.71	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	105.42%	
76) toluene-d8 (s)	13.238	98	357894	49.76	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.52%	
100) 4-bromofluorobenzene (s)	15.733	95	132064	49.38	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	98.76%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.463	59	55593	185.66	ug/L		92
3) Ethanol	6.873	45	76693	5429.34	ug/L		100
4) 1,4-dioxane	12.380	88	21936	1341.63	ug/L		95
7) chlorodifluoromethane	4.336	51	158963	55.46	ug/L		99
8) dichlorodifluoromethane	4.299	85	126530	55.45	ug/L		98
10) chloromethane	4.760	50	178722	47.68	ug/L		98
11) vinyl chloride	5.053	62	166405	50.84	ug/L		99
12) bromomethane	5.811	94	97169	50.15	ug/L		98
13) chloroethane	5.999	64	90327	49.94	ug/L		99
14) trichlorofluoromethane	6.491	101	173355	55.21	ug/L		97
16) ethyl ether	7.014	74	63767	48.76	ug/L		98
18) acrolein	7.338	56	200827	383.38	ug/L		98
19) 1,1-dichloroethene	7.500	61	191489	55.62	ug/L		97
20) acetone	7.600	43	37145	55.34	ug/L		99
21) allyl chloride	8.128	76	76577	53.85	ug/L		92
22) acetonitrile	8.123	40	95085	479.99	ug/L	#	83
23) iodomethane	7.830	142	206308	50.71	ug/L		99
24) iso-butyl alcohol	11.308	74	39902	523.98	ug/L	#	83
25) carbon disulfide	7.961	76	386491	50.48	ug/L		98
26) methylene chloride	8.353	84	127286	49.72	ug/L		98
27) methyl acetate	8.123	74	15331	43.80	ug/L		95
28) methyl tert butyl ether	8.698	73	662168	101.10	ug/L		94
29) trans-1,2-dichloroethene	8.761	61	183895	53.90	ug/L		99
30) di-isopropyl ether	9.357	45	456419	52.07	ug/L		96
31) 2-butanone	10.178	72	12360	50.89	ug/L	#	78
32) 1,1-dichloroethane	9.399	63	237771	53.66	ug/L		98
33) chloroprene	9.509	53	181534	51.24	ug/L		98
34) acrylonitrile	8.745	53	200573	244.29	ug/L		99
35) vinyl acetate	9.388	86	19183	48.25	ug/L		79
36) ethyl tert-butyl ether	9.864	59	389346	51.67	ug/L		100
37) ethyl acetate	10.183	45	14804	47.18	ug/L	#	62
38) 2,2-dichloropropane	10.194	77	173685	51.63	ug/L		99
39) cis-1,2-dichloroethene	10.204	96	139278	49.38	ug/L		97
40) methylacrylate	10.278	85	15838	49.99	ug/L	#	84
41) propionitrile	10.304	54	152388	506.30	ug/L		96
42) bromochloromethane	10.544	128	66242	52.23	ug/L		99
43) tetrahydrofuran	10.576	42	34343	47.01	ug/L		98
44) chloroform	10.602	85	145736	52.80	ug/L		97
45) t-butyl formate	10.628	59	6573	4.66	ug/L	#	1
48) freon 113	7.469	151	86699	56.98	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166322.D
 Acq On : 11 Mar 2016 8:06 pm
 Operator : tracyk
 Sample : jc15796-1ms
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 15 10:09:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmxl.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.487	41	67685	48.40	ug/L	97
50) 1,1,1-trichloroethane	10.848	97	191516	57.41	ug/L	98
51) Cyclohexane	10.910	84	189916	58.40	ug/L	95
53) epichlorohydrin	12.898	57	29906	184.32	ug/L	97
54) n-butyl alcohol	11.815	56	134550	2285.76	ug/L	99
55) carbon tetrachloride	11.052	117	174986	55.97	ug/L	98
56) 1,1-dichloropropene	11.031	75	183999	58.57	ug/L	99
57) hexane	9.069	57	141559	45.76	ug/L	97
58) TERT AMYL ALCOHOL	11.193	73	24248	219.39	ug/L	96
59) 2,2,4-TRIMETHYLPENTANE	11.271	57	461113	57.22	ug/L	100
60) benzene	11.303	78	504828	52.36	ug/L	99
61) tert-amyl methyl ether	11.324	87	79467	53.48	ug/L	94
62) heptane	11.444	57	91704	55.14	ug/L	99
63) isopropyl acetate	11.224	43	287678	51.82	ug/L	99
64) 1,2-dichloroethane	11.334	62	156323	53.88	ug/L	98
66) trichloroethene	12.004	95	129676	53.89	ug/L	99
68) methyl methacrylate	12.260	100	25691	48.75	ug/L #	92
69) 2-nitropropane	12.762	41	23060	47.35	ug/L	96
71) 1,2-dichloropropane	12.270	63	130910	51.12	ug/L	98
72) dibromomethane	12.427	93	72118	52.21	ug/L	99
73) methylcyclohexane	12.197	83	193294	53.28	ug/L	98
74) bromodichloromethane	12.548	83	158476	49.48	ug/L	98
75) cis-1,3-dichloropropene	12.976	75	204411	51.55	ug/L	97
77) 4-methyl-2-pentanone	13.060	58	38999	50.22	ug/L #	83
78) toluene	13.306	92	289575	52.01	ug/L	99
79) 3-methyl-1-butanol	13.081	55	78921	866.22	ug/L	97
80) trans-1,3-dichloropropene	13.505	75	176182	50.59	ug/L	98
81) ethyl methacrylate	13.479	69	132640	50.15	ug/L	100
82) 1,1,2-trichloroethane	13.709	83	84458	49.55	ug/L	97
83) 2-hexanone	13.855	58	35241	51.58	ug/L	95
85) tetrachloroethene	13.855	164	108395	55.23	ug/L	98
86) 1,3-dichloropropane	13.881	76	164803	51.88	ug/L	98
87) butyl acetate	13.913	56	63221	52.55	ug/L	91
88) 3,3-dimethyl-1-butanol	14.017	57	77091	417.55	ug/L	94
89) dibromochloromethane	14.132	129	112617	47.49	ug/L	99
90) 1,2-dibromoethane	14.274	107	100547	50.77	ug/L	99
91) chlorobenzene	14.692	112	323745	53.14	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.744	131	123269	52.45	ug/L	98
93) ethylbenzene	14.729	91	544963	53.14	ug/L	100
94) m,p-xylene	14.828	106	415038	107.34	ug/L	100
95) o-xylene	15.220	106	209174	54.07	ug/L	99
96) styrene	15.231	104	337808	50.94	ug/L	99
97) bromoform	15.497	173	72347	45.09	ug/L	100
99) isopropylbenzene	15.529	105	755225	73.81	ug/L	100
101) cyclohexanone	15.717	98	10984	358.50	ug/L	91
102) bromobenzene	15.921	156	148133	51.13	ug/L	99
103) 1,1,2,2-tetrachloroethane	15.832	83	127125	49.08	ug/L	98
104) trans-1,4-dichloro-2-b...	15.869	53	33493	51.62	ug/L	94
105) 1,2,3-trichloropropane	15.905	110	30272	48.78	ug/L	97
106) n-propylbenzene	15.911	120	156522	58.59	ug/L	97
107) 2-chlorotoluene	16.057	126	133486	50.57	ug/L	99
108) 4-chlorotoluene	16.151	126	138610	52.12	ug/L	98
109) 1,3,5-trimethylbenzene	16.041	105	449161	51.76	ug/L	100
110) tert-butylbenzene	16.371	119	401121	54.05	ug/L	99
111) pentachloroethane	16.465	167	93949	52.20	ug/L	98
112) 1,2,4-trimethylbenzene	16.413	105	459587	52.08	ug/L	100
113) sec-butylbenzene	16.570	105	599467	54.27	ug/L	100
114) 1,3-dichlorobenzene	16.768	146	280911	51.24	ug/L	98

7.4.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166322.D
 Acq On : 11 Mar 2016 8:06 pm
 Operator : tracyk
 Sample : jc15796-1ms
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 15 10:09:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) p-isopropyltoluene	16.679	119	513461	54.68	ug/L	99
116) 1,4-dichlorobenzene	16.847	146	284459	51.70	ug/L	98
117) 1,2-dichlorobenzene	17.229	146	273250	51.97	ug/L	99
118) benzyl chloride	16.957	91	229622	49.13	ug/L	100
119) n-butylbenzene	17.072	92	267008	53.81	ug/L	99
120) 1,2-dibromo-3-chloropr...	18.003	75	22005	50.32	ug/L	98
121) 1,3,5-TRICHLOROBENZENE	18.170	180	248085	52.97	ug/L	99
122) 1,2,4-trichlorobenzene	18.829	180	223887	52.51	ug/L	96
123) hexachlorobutadiene	18.928	225	111716	54.23	ug/L	97
124) naphthalene	19.122	128	413930	50.66	ug/L	100
125) 1,2,3-trichlorobenzene	19.368	180	199483	52.73	ug/L	97
126) hexachloroethane	17.474	201	95327	54.82	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

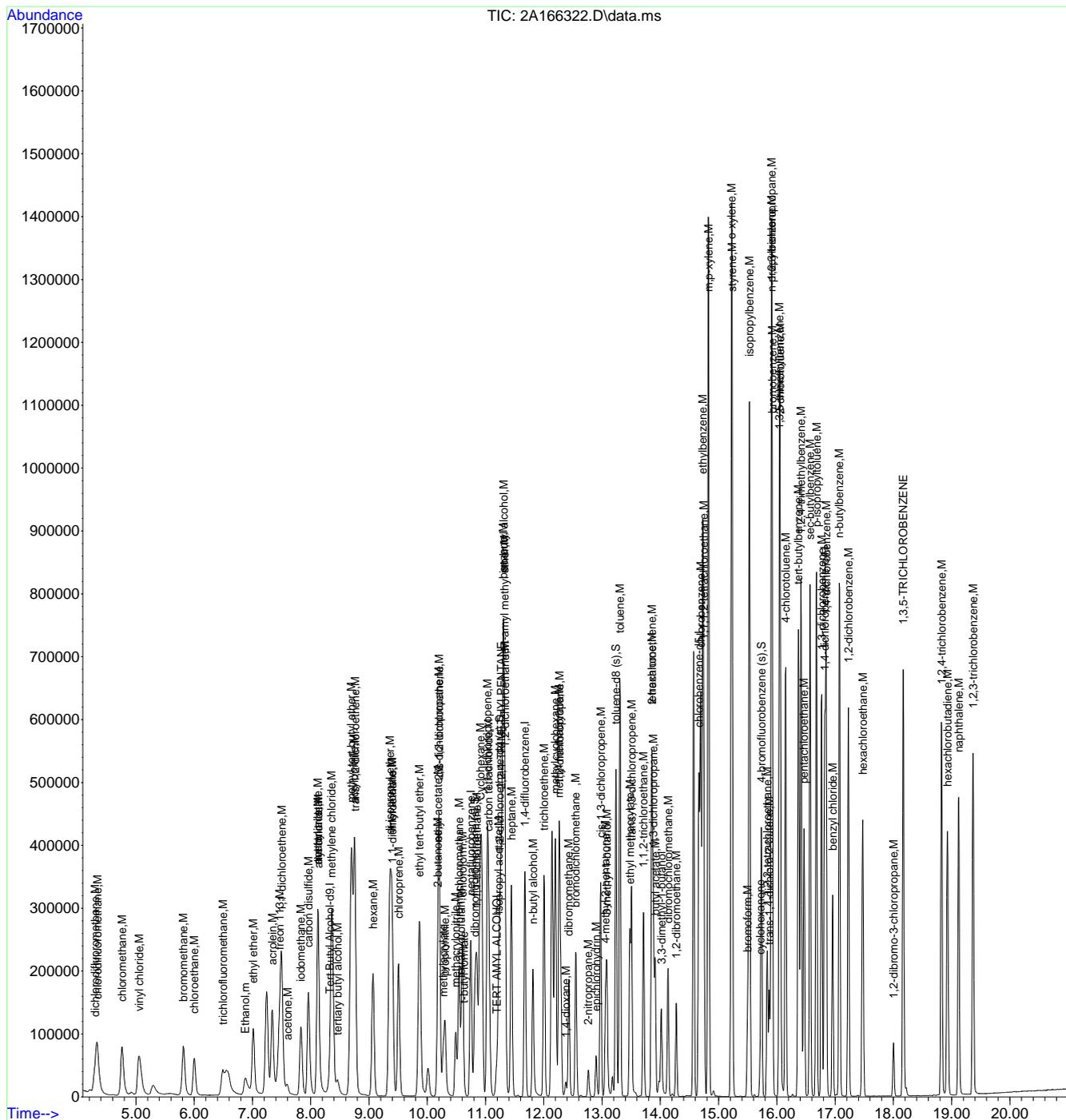
7.4.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
Data File : 2A166322.D
Acq On : 11 Mar 2016 8:06 pm
Operator : tracyk
Sample : jc15796-1ms
Misc : MS99488,V2A7072,5.0,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 15 10:09:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mmx0.25mmx1.4um
QLast Update : Sat Mar 12 15:58:04 2016
Response via : Initial Calibration



7.4.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166323.D
 Acq On : 11 Mar 2016 8:36 pm
 Operator : tracyk
 Sample : jc15796-1msd
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 15 10:09:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Tert Butyl Alcohol-d9	8.332	65	93737	500.00	ug/L	0.00	
5) pentafluorobenzene	10.748	168	231568	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	334695	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	278023	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	154075	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.816	113	102241	49.94	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	99.88%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	109918	52.12	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	104.24%	
76) toluene-d8 (s)	13.238	98	361883	49.74	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.48%	
100) 4-bromofluorobenzene (s)	15.733	95	133126	49.15	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	98.30%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.463	59	60164	187.30	ug/L		96
3) Ethanol	6.883	45	89854	5981.43	ug/L		99
4) 1,4-dioxane	12.375	88	26494	1510.50	ug/L		93
7) chlorodifluoromethane	4.341	51	164334	56.17	ug/L		97
8) dichlorodifluoromethane	4.300	85	131121	56.29	ug/L		97
10) chloromethane	4.760	50	188104	49.16	ug/L		99
11) vinyl chloride	5.053	62	178761	53.50	ug/L		100
12) bromomethane	5.816	94	106279	53.73	ug/L		98
13) chloroethane	6.005	64	98449	53.32	ug/L		98
14) trichlorofluoromethane	6.491	101	183517	57.26	ug/L		99
16) ethyl ether	7.019	74	68623	51.40	ug/L		97
18) acrolein	7.338	56	216230	404.38	ug/L		99
19) 1,1-dichloroethene	7.500	61	199497	56.77	ug/L		98
20) acetone	7.600	43	34549	50.42	ug/L		100
21) allyl chloride	8.128	76	77947	53.70	ug/L		98
22) acetonitrile	8.123	40	101616	502.50	ug/L		91
23) iodomethane	7.835	142	218350	52.57	ug/L		99
24) iso-butyl alcohol	11.308	74	41827	538.07	ug/L	#	83
25) carbon disulfide	7.961	76	408613	52.29	ug/L		98
26) methylene chloride	8.353	84	133136	50.94	ug/L		97
27) methyl acetate	8.123	74	16209	45.36	ug/L		96
28) methyl tert butyl ether	8.703	73	696988	104.25	ug/L		94
29) trans-1,2-dichloroethene	8.761	61	189356	54.37	ug/L		98
30) di-isopropyl ether	9.357	45	477817	53.40	ug/L		98
31) 2-butanone	10.178	72	12456	50.24	ug/L	#	84
32) 1,1-dichloroethane	9.404	63	242775	53.67	ug/L		99
33) chloroprene	9.509	53	188542	52.14	ug/L		99
34) acrylonitrile	8.750	53	212104	253.07	ug/L		98
35) vinyl acetate	9.389	86	20241	49.87	ug/L		74
36) ethyl tert-butyl ether	9.870	59	409300	53.21	ug/L		99
37) ethyl acetate	10.189	45	15905	49.66	ug/L		83
38) 2,2-dichloropropane	10.194	77	175433	51.09	ug/L		99
39) cis-1,2-dichloroethene	10.204	96	143454	49.83	ug/L		94
40) methylacrylate	10.272	85	17259	53.37	ug/L	#	94
41) propionitrile	10.304	54	164812	536.42	ug/L		95
42) bromochloromethane	10.544	128	69307	53.53	ug/L		100
43) tetrahydrofuran	10.581	42	36175	48.51	ug/L		98
44) chloroform	10.602	85	150751	53.50	ug/L		98
45) t-butyl formate	10.623	59	4799	3.33	ug/L	#	1
48) freon 113	7.469	151	91475	58.89	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166323.D
 Acq On : 11 Mar 2016 8:36 pm
 Operator : tracyk
 Sample : jc15796-1msd
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 15 10:09:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmxl.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.487	41	72612	50.87	ug/L	98
50) 1,1,1-trichloroethane	10.848	97	196214	57.62	ug/L	98
51) Cyclohexane	10.911	84	193260	58.21	ug/L	97
53) epichlorohydrin	12.898	57	29807	181.61	ug/L	94
54) n-butyl alcohol	11.815	56	149766	2515.18	ug/L	97
55) carbon tetrachloride	11.052	117	180307	57.01	ug/L	95
56) 1,1-dichloropropene	11.031	75	189433	59.61	ug/L	98
57) hexane	9.070	57	141760	45.30	ug/L	100
58) TERT AMYL ALCOHOL	11.193	73	26598	237.90	ug/L	97
59) 2,2,4-TRIMETHYLPENTANE	11.271	57	494688	60.68	ug/L	99
60) benzene	11.303	78	522523	53.58	ug/L	100
61) tert-amyl methyl ether	11.324	87	85112	56.63	ug/L	99
62) heptane	11.444	57	97918	58.20	ug/L	98
63) isopropyl acetate	11.224	43	311841	55.53	ug/L	99
64) 1,2-dichloroethane	11.334	62	159790	54.45	ug/L	99
66) trichloroethene	12.004	95	133206	54.72	ug/L	98
68) methyl methacrylate	12.260	100	27268	51.15	ug/L	94
69) 2-nitropropane	12.762	41	24456	49.64	ug/L	98
71) 1,2-dichloropropane	12.270	63	136384	52.65	ug/L	97
72) dibromomethane	12.427	93	75323	53.91	ug/L	100
73) methylcyclohexane	12.197	83	206808	56.36	ug/L	98
74) bromodichloromethane	12.553	83	163807	50.56	ug/L	98
75) cis-1,3-dichloropropene	12.977	75	211765	52.79	ug/L	98
77) 4-methyl-2-pentanone	13.060	58	41316	52.59	ug/L	88
78) toluene	13.306	92	298915	53.07	ug/L	99
79) 3-methyl-1-butanol	13.081	55	86077	933.97	ug/L	98
80) trans-1,3-dichloropropene	13.505	75	179679	51.01	ug/L	97
81) ethyl methacrylate	13.479	69	138777	51.87	ug/L	100
82) 1,1,2-trichloroethane	13.709	83	87716	50.87	ug/L	98
83) 2-hexanone	13.855	58	36812	53.26	ug/L	100
85) tetrachloroethene	13.855	164	110922	56.46	ug/L	99
86) 1,3-dichloropropane	13.881	76	169177	53.20	ug/L	97
87) butyl acetate	13.913	56	65591	54.47	ug/L	95
88) 3,3-dimethyl-1-butanol	14.017	57	84380	456.60	ug/L	94
89) dibromochloromethane	14.132	129	116677	49.16	ug/L	99
90) 1,2-dibromoethane	14.274	107	105397	53.16	ug/L	97
91) chlorobenzene	14.692	112	331287	54.33	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.744	131	127159	54.05	ug/L	97
93) ethylbenzene	14.729	91	554592	54.03	ug/L	100
94) m,p-xylene	14.823	106	424196	109.61	ug/L	100
95) o-xylene	15.220	106	213457	55.13	ug/L	99
96) styrene	15.231	104	344388	51.88	ug/L	100
97) bromoform	15.498	173	75781	47.18	ug/L	99
99) isopropylbenzene	15.529	105	774763	74.76	ug/L	99
101) cyclohexanone	15.717	98	12780	411.85	ug/L	96
102) bromobenzene	15.921	156	150692	51.35	ug/L	99
103) 1,1,2,2-tetrachloroethane	15.832	83	132935	50.67	ug/L	100
104) trans-1,4-dichloro-2-b...	15.869	53	35850	54.56	ug/L	98
105) 1,2,3-trichloropropane	15.905	110	31476	50.09	ug/L	98
106) n-propylbenzene	15.911	120	159326	58.88	ug/L	99
107) 2-chlorotoluene	16.057	126	136754	51.15	ug/L	99
108) 4-chlorotoluene	16.151	126	141886	52.67	ug/L	99
109) 1,3,5-trimethylbenzene	16.041	105	459170	52.24	ug/L	99
110) tert-butylbenzene	16.371	119	408933	54.41	ug/L	99
111) pentachloroethane	16.465	167	96200	52.78	ug/L	99
112) 1,2,4-trimethylbenzene	16.413	105	471387	52.75	ug/L	100
113) sec-butylbenzene	16.570	105	607887	54.33	ug/L	99
114) 1,3-dichlorobenzene	16.768	146	287795	51.83	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166323.D
 Acq On : 11 Mar 2016 8:36 pm
 Operator : tracyk
 Sample : jc15796-1msd
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 15 10:09:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

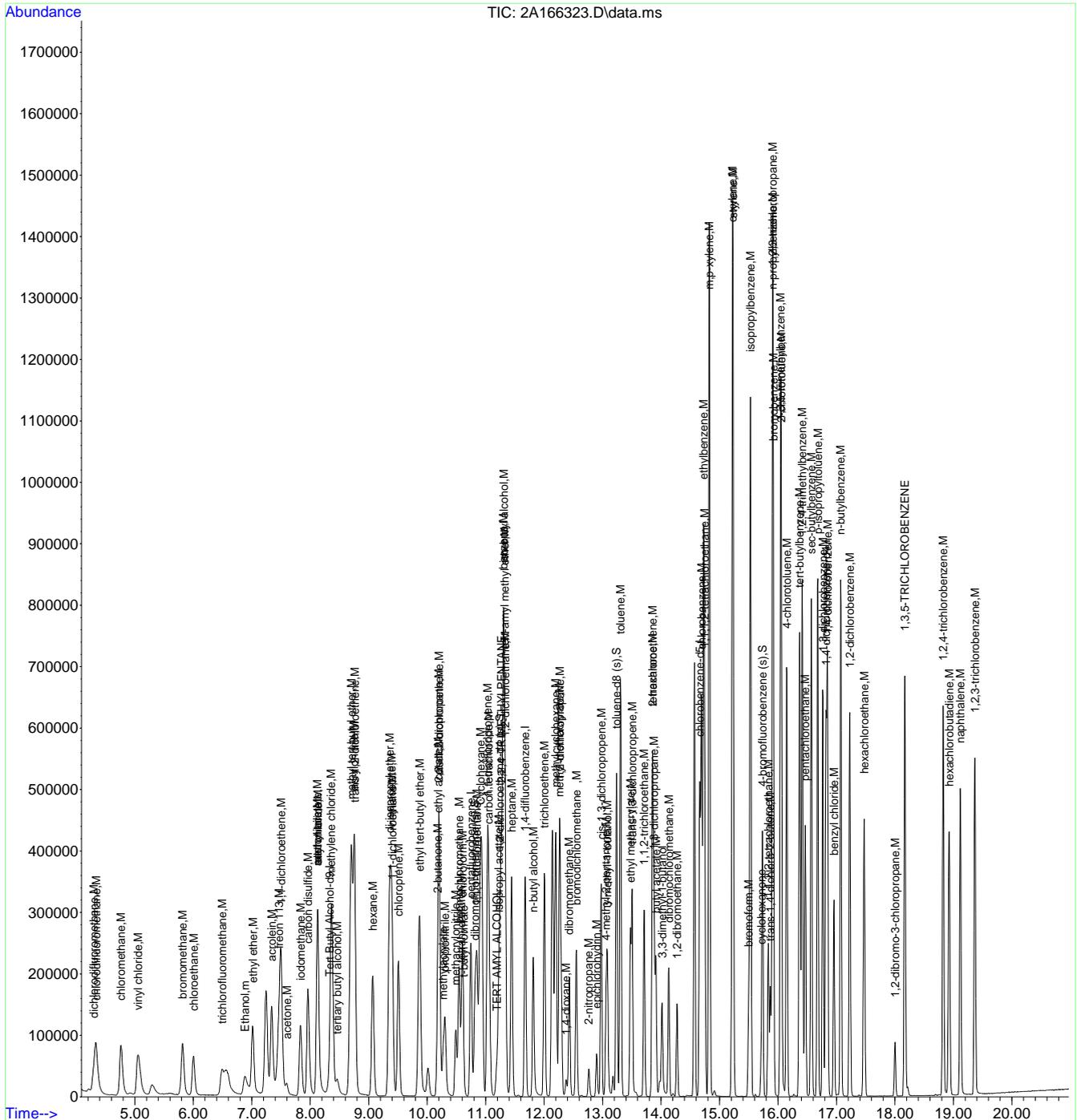
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) p-isopropyltoluene	16.680	119	521947	54.88	ug/L	100
116) 1,4-dichlorobenzene	16.847	146	291693	52.34	ug/L	99
117) 1,2-dichlorobenzene	17.229	146	279567	52.50	ug/L	99
118) benzyl chloride	16.957	91	233491	49.32	ug/L	100
119) n-butylbenzene	17.072	92	273492	54.42	ug/L	99
120) 1,2-dibromo-3-chloropr...	18.003	75	23350	52.72	ug/L	95
121) 1,3,5-TRICHLOROBENZENE	18.170	180	251598	53.05	ug/L	99
122) 1,2,4-trichlorobenzene	18.824	180	230722	53.43	ug/L	99
123) hexachlorobutadiene	18.929	225	115712	55.46	ug/L	97
124) naphthalene	19.117	128	432482	52.27	ug/L	100
125) 1,2,3-trichlorobenzene	19.368	180	205239	53.56	ug/L	99
126) hexachloroethane	17.475	201	98257	55.79	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
Data File : 2A166323.D
Acq On : 11 Mar 2016 8:36 pm
Operator : tracyk
Sample : jc15796-1msd
Misc : MS99488,V2A7072,5.0,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 15 10:09:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Sat Mar 12 15:58:04 2016
Response via : Initial Calibration



7.4.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166389.D
 Acq On : 14 Mar 2016 4:52 pm
 Operator : tracyk
 Sample : jc15990-9ms
 Misc : MS99560,V2A7074,5.0,,,,,25
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 10:21:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Tert Butyl Alcohol-d9	8.322	65	92335	500.00	ug/L	0.00	
5) pentafluorobenzene	10.748	168	227322	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	332795	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	281305	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	165224	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.816	113	104802	52.14	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	104.28%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	113004	54.59	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	109.18%	
76) toluene-d8 (s)	13.238	98	366610	50.68	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	101.36%	
100) 4-bromofluorobenzene (s)	15.733	95	137053	47.18	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	94.36%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.458	59	50118	158.39	ug/L		94
3) Ethanol	6.878	45	1677089	123433.23	ug/L		96
4) 1,4-dioxane	12.380	88	18239	1055.65	ug/L		95
7) chlorodifluoromethane	4.341	51	125106	43.56	ug/L		97
8) dichlorodifluoromethane	4.305	85	150378	65.76	ug/L		99
10) chloromethane	4.760	50	218697	58.22	ug/L		99
11) vinyl chloride	5.053	62	187679	57.22	ug/L		100
12) bromomethane	5.816	94	97386	50.15	ug/L		98
13) chloroethane	6.005	64	93897	51.81	ug/L		96
14) trichlorofluoromethane	6.491	101	173814	55.24	ug/L		97
16) ethyl ether	7.014	74	61984	47.30	ug/L	#	46
18) acrolein	7.338	56	231753	441.50	ug/L		100
19) 1,1-dichloroethene	7.506	61	178517	51.75	ug/L		96
20) acetone	7.595	43	37466	55.70	ug/L		98
21) allyl chloride	8.123	76	70098	49.19	ug/L		93
22) acetonitrile	8.123	40	92847	467.72	ug/L	#	86
23) iodomethane	7.830	142	193605	47.48	ug/L		96
24) iso-butyl alcohol	11.308	74	39002	511.10	ug/L	#	86
25) carbon disulfide	7.961	76	357064	46.54	ug/L		97
26) methylene chloride	8.353	84	128055	49.91	ug/L		98
27) methyl acetate	8.123	74	14535	41.44	ug/L		94
28) methyl tert butyl ether	8.703	73	657772	100.22	ug/L		96
29) trans-1,2-dichloroethene	8.761	61	179094	52.38	ug/L		96
30) di-isopropyl ether	9.357	45	402450	45.82	ug/L		92
31) 2-butanone	10.178	72	16726	68.72	ug/L	#	22
32) 1,1-dichloroethane	9.404	63	233235	52.53	ug/L		98
33) chloroprene	9.504	53	154890	43.63	ug/L		97
34) acrylonitrile	8.745	53	216139	262.70	ug/L		98
35) vinyl acetate	9.383	86	19418	48.74	ug/L		65
36) ethyl tert-butyl ether	9.865	59	363869	48.19	ug/L		99
37) ethyl acetate	10.184	45	26394	83.95	ug/L	#	32
38) 2,2-dichloropropane	10.194	77	190621	56.55	ug/L		97
39) cis-1,2-dichloroethene	10.205	96	136763	48.39	ug/L		91
40) methylacrylate	10.273	85	16525	52.05	ug/L	#	83
41) propionitrile	10.304	54	157077	520.80	ug/L		98
42) bromochloromethane	10.544	128	66674	52.46	ug/L		98
43) tetrahydrofuran	10.576	42	38726	52.90	ug/L		99
44) chloroform	10.602	85	144818	52.36	ug/L		98
45) t-butyl formate	10.623	59	70856	50.15	ug/L		95
48) freon 113	7.474	151	70028	45.93	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2A7072-7075\
 Data File : 2A166389.D
 Acq On : 14 Mar 2016 4:52 pm
 Operator : tracyk
 Sample : jc15990-9ms
 Misc : MS99560,V2A7074,5.0,,,,,25
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 10:21:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmxl.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.487	41	74213	52.96	ug/L	97
50) 1,1,1-trichloroethane	10.848	97	187347	56.04	ug/L	98
51) Cyclohexane	10.905	84	178496	54.77	ug/L	96
53) epichlorohydrin	12.893	57	42561	260.80	ug/L	97
54) n-butyl alcohol	11.810	56	769078	12989.68	ug/L	98
55) carbon tetrachloride	11.052	117	171455	54.52	ug/L	95
56) 1,1-dichloropropene	11.031	75	173216	54.82	ug/L	99
57) hexane	9.070	57	104172	33.48	ug/L	97
58) TERT AMYL ALCOHOL	11.188	73	25494	229.33	ug/L	99
59) 2,2,4-TRIMETHYLPENTANE	11.272	57	401370	49.52	ug/L	97
60) benzene	11.303	78	486024	50.12	ug/L	99
61) tert-amyl methyl ether	11.324	87	75116	50.26	ug/L	99
62) heptane	11.444	57	77113	46.09	ug/L	98
63) isopropyl acetate	11.224	43	284478	50.94	ug/L	99
64) 1,2-dichloroethane	11.334	62	159748	54.75	ug/L	99
66) trichloroethene	12.004	95	122577	50.64	ug/L	98
68) methyl methacrylate	12.260	100	26942	50.83	ug/L #	91
69) 2-nitropropane	12.762	41	30351	61.96	ug/L	91
70) 2-chloroethyl vinyl ether	12.762	63	128812	427.67	ug/L	99
71) 1,2-dichloropropene	12.270	63	129739	50.37	ug/L	97
72) dibromomethane	12.427	93	73350	52.80	ug/L	97
73) methylcyclohexane	12.197	83	163754	44.88	ug/L	97
74) bromodichloromethane	12.548	83	164398	51.04	ug/L	99
75) cis-1,3-dichloropropene	12.977	75	204938	51.38	ug/L	94
77) 4-methyl-2-pentanone	13.060	58	44968	57.57	ug/L #	83
78) toluene	13.306	92	277761	49.60	ug/L	98
79) 3-methyl-1-butanol	13.081	55	91540	998.91	ug/L	98
80) trans-1,3-dichloropropene	13.505	75	181610	51.85	ug/L	98
81) ethyl methacrylate	13.473	69	146407	55.04	ug/L	96
82) 1,1,2-trichloroethane	13.709	83	85623	49.94	ug/L	95
83) 2-hexanone	13.855	58	40284	58.62	ug/L	94
85) tetrachloroethene	13.855	164	102729	51.68	ug/L	99
86) 1,3-dichloropropane	13.881	76	168313	52.31	ug/L	95
87) butyl acetate	13.913	56	77339	63.47	ug/L	100
88) 3,3-dimethyl-1-butanol	14.017	57	102783	549.69	ug/L	99
89) dibromochloromethane	14.132	129	121975	50.79	ug/L	98
90) 1,2-dibromoethane	14.274	107	102339	51.02	ug/L	100
91) chlorobenzene	14.692	112	316757	51.34	ug/L	98
92) 1,1,1,2-tetrachloroethane	14.744	131	126192	53.01	ug/L	97
93) ethylbenzene	14.729	91	525882	50.63	ug/L	99
94) m,p-xylene	14.823	106	402677	102.83	ug/L	99
95) o-xylene	15.215	106	208020	53.10	ug/L	99
96) styrene	15.231	104	343148	51.09	ug/L	98
97) bromoform	15.498	173	85409	52.56	ug/L	99
99) isopropylbenzene	15.529	105	529217	47.62	ug/L	99
101) cyclohexanone	15.717	98	14507	435.96	ug/L	90
102) bromobenzene	15.921	156	149049	47.36	ug/L	99
103) 1,1,2,2-tetrachloroethane	15.832	83	134307	47.74	ug/L	99
104) trans-1,4-dichloro-2-b...	15.869	53	36356	51.60	ug/L	97
105) 1,2,3-trichloropropane	15.906	110	32389	48.06	ug/L	97
106) n-propylbenzene	15.911	120	142343	49.06	ug/L	97
107) 2-chlorotoluene	16.057	126	133414	46.53	ug/L	99
108) 4-chlorotoluene	16.146	126	138351	47.90	ug/L	94
109) 1,3,5-trimethylbenzene	16.041	105	454839	48.26	ug/L	99
110) tert-butylbenzene	16.371	119	399311	49.54	ug/L	100
111) pentachloroethane	16.465	167	98924	50.61	ug/L	96
112) 1,2,4-trimethylbenzene	16.413	105	470109	49.06	ug/L	99
113) sec-butylbenzene	16.570	105	595345	49.62	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166389.D
 Acq On : 14 Mar 2016 4:52 pm
 Operator : tracyk
 Sample : jc15990-9ms
 Misc : MS99560,V2A7074,5.0,,,,,25
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 10:21:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

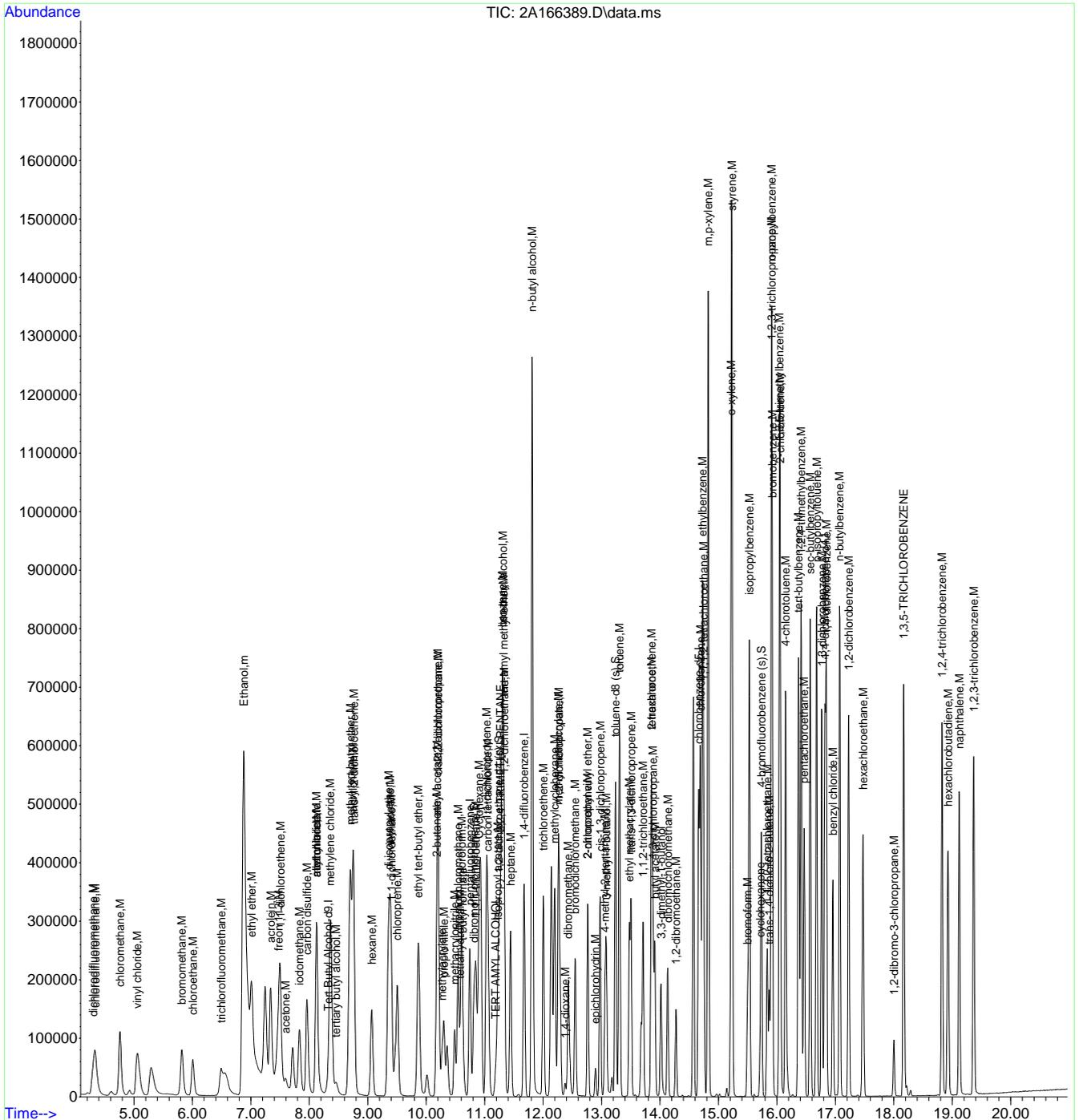
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,3-dichlorobenzene	16.769	146	287697	48.32	ug/L	99
115) p-isopropyltoluene	16.680	119	516410	50.63	ug/L	99
116) 1,4-dichlorobenzene	16.847	146	294124	49.22	ug/L	100
117) 1,2-dichlorobenzene	17.229	146	287618	50.37	ug/L	98
118) benzyl chloride	16.957	91	268005	52.79	ug/L	99
119) n-butylbenzene	17.072	92	271260	50.34	ug/L	97
120) 1,2-dibromo-3-chloropr...	18.003	75	24684	51.97	ug/L	95
121) 1,3,5-TRICHLOROENZENE	18.170	180	258053	50.73	ug/L	99
122) 1,2,4-trichlorobenzene	18.824	180	231261	49.94	ug/L	97
123) hexachlorobutadiene	18.929	225	110830	49.53	ug/L	98
124) naphthalene	19.122	128	446304	50.30	ug/L	99
125) 1,2,3-trichlorobenzene	19.368	180	207798	50.57	ug/L	99
126) hexachloroethane	17.475	201	96889	51.30	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166389.D
 Acq On : 14 Mar 2016 4:52 pm
 Operator : tracyk
 Sample : jcl15990-9ms
 Misc : MS99560,V2A7074,5.0,,,,,25
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 15 10:21:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166390.D
 Acq On : 14 Mar 2016 5:22 pm
 Operator : tracyk
 Sample : jc15990-9msd
 Misc : MS99560,V2A7074,5.0,,,,,25
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 10:22:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
1) Tert Butyl Alcohol-d9	8.327	65	93774	500.00	ug/L	0.00	
5) pentafluorobenzene	10.748	168	236592	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	346035	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	291171	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	166816	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.811	113	107963	51.61	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	103.22%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	116898	54.26	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	108.52%	
76) toluene-d8 (s)	13.238	98	376609	50.07	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	100.14%	
100) 4-bromofluorobenzene (s)	15.733	95	141792	48.35	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	96.70%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.463	59	53956	167.91	ug/L		98
3) Ethanol	6.878	45	1989102	144245.18	ug/L		96
4) 1,4-dioxane	12.375	88	21909	1248.60	ug/L		97
7) chlorodifluoromethane	4.336	51	131043	43.84	ug/L		97
8) dichlorodifluoromethane	4.305	85	156197	65.63	ug/L		97
10) chloromethane	4.760	50	233711	59.78	ug/L		99
11) vinyl chloride	5.058	62	206508	60.49	ug/L		99
12) bromomethane	5.816	94	112919	55.88	ug/L		99
13) chloroethane	6.005	64	108033	57.27	ug/L		97
14) trichlorofluoromethane	6.491	101	192923	58.91	ug/L		99
16) ethyl ether	7.014	74	69627	51.05	ug/L	#	42
18) acrolein	7.338	56	251722	460.75	ug/L		99
19) 1,1-dichloroethene	7.500	61	187499	52.22	ug/L		96
20) acetone	7.595	43	39311	56.15	ug/L		95
21) allyl chloride	8.123	76	74492	50.23	ug/L		96
22) acetonitrile	8.123	40	97986	474.26	ug/L	#	85
23) iodomethane	7.830	142	199503	47.01	ug/L		94
24) iso-butyl alcohol	11.303	74	39646	499.18	ug/L		95
25) carbon disulfide	7.961	76	370182	46.36	ug/L		95
26) methylene chloride	8.353	84	132543	49.64	ug/L		98
27) methyl acetate	8.123	74	15770	43.20	ug/L		97
28) methyl tert butyl ether	8.703	73	678742	99.36	ug/L		96
29) trans-1,2-dichloroethene	8.761	61	185331	52.08	ug/L		98
30) di-isopropyl ether	9.357	45	416478	45.56	ug/L		91
31) 2-butanone	10.173	72	17191	67.86	ug/L	#	57
32) 1,1-dichloroethane	9.399	63	239439	51.81	ug/L		100
33) chloroprene	9.509	53	158423	42.88	ug/L		98
34) acrylonitrile	8.745	53	225279	263.08	ug/L		99
35) vinyl acetate	9.383	86	20522	49.49	ug/L		83
36) ethyl tert-butyl ether	9.865	59	380159	48.37	ug/L		100
37) ethyl acetate	10.184	45	27034	82.61	ug/L	#	32
38) 2,2-dichloropropane	10.194	77	193105	55.04	ug/L		96
39) cis-1,2-dichloroethene	10.204	96	140608	47.80	ug/L		91
40) methylacrylate	10.267	85	16706	50.56	ug/L		90
41) propionitrile	10.304	54	165657	527.72	ug/L		98
42) bromochloromethane	10.544	128	69215	52.32	ug/L		98
43) tetrahydrofuran	10.576	42	40780	53.52	ug/L		96
44) chloroform	10.602	85	150514	52.28	ug/L		98
45) t-butyl formate	10.618	59	74946	50.97	ug/L		95
48) freon 113	7.469	151	75981	47.88	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166390.D
 Acq On : 14 Mar 2016 5:22 pm
 Operator : tracyk
 Sample : jc15990-9msd
 Misc : MS99560,V2A7074,5.0,,,,,25
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 10:22:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.487	41	76993	52.79	ug/L	97
50) 1,1,1-trichloroethane	10.848	97	192050	55.20	ug/L	98
51) Cyclohexane	10.911	84	185835	54.79	ug/L	94
53) epichlorohydrin	12.898	57	44168	260.30	ug/L	97
54) n-butyl alcohol	11.810	56	839648	13638.99	ug/L	98
55) carbon tetrachloride	11.052	117	177843	54.39	ug/L	98
56) 1,1-dichloropropene	11.031	75	179626	54.67	ug/L	98
57) hexane	9.070	57	108435	33.51	ug/L	97
58) TERT AMYL ALCOHOL	11.188	73	26861	232.38	ug/L	100
59) 2,2,4-TRIMETHYLPENTANE	11.271	57	414411	49.17	ug/L	97
60) benzene	11.303	78	501901	49.78	ug/L	100
61) tert-amyl methyl ether	11.324	87	78566	50.56	ug/L	96
62) heptane	11.444	57	80963	46.54	ug/L	97
63) isopropyl acetate	11.224	43	292839	50.43	ug/L	98
64) 1,2-dichloroethane	11.334	62	165437	54.53	ug/L	99
66) trichloroethene	12.004	95	125716	49.95	ug/L	98
68) methyl methacrylate	12.260	100	28132	51.04	ug/L	93
69) 2-nitropropane	12.762	41	32149	63.12	ug/L	93
70) 2-chloroethyl vinyl ether	12.762	63	136165	434.78	ug/L	99
71) 1,2-dichloropropene	12.270	63	134666	50.29	ug/L	99
72) dibromomethane	12.427	93	76137	52.71	ug/L	99
73) methylcyclohexane	12.197	83	169542	44.69	ug/L	98
74) bromodichloromethane	12.548	83	169551	50.62	ug/L	98
75) cis-1,3-dichloropropene	12.977	75	214150	51.64	ug/L	97
77) 4-methyl-2-pentanone	13.060	58	46969	57.83	ug/L #	84
78) toluene	13.306	92	287954	49.45	ug/L	99
79) 3-methyl-1-butanol	13.081	55	97430	1022.51	ug/L	97
80) trans-1,3-dichloropropene	13.505	75	188288	51.70	ug/L	98
81) ethyl methacrylate	13.473	69	152034	54.97	ug/L	96
82) 1,1,2-trichloroethane	13.709	83	89908	50.43	ug/L	96
83) 2-hexanone	13.855	58	41921	58.67	ug/L	91
85) tetrachloroethene	13.855	164	106306	51.67	ug/L	99
86) 1,3-dichloropropane	13.881	76	173808	52.19	ug/L	98
87) butyl acetate	13.913	56	80647	63.95	ug/L	97
88) 3,3-dimethyl-1-butanol	14.017	57	111213	574.62	ug/L	99
89) dibromochloromethane	14.132	129	129894	52.25	ug/L	98
90) 1,2-dibromoethane	14.274	107	107288	51.67	ug/L	100
91) chlorobenzene	14.692	112	325945	51.04	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.744	131	128972	52.35	ug/L	98
93) ethylbenzene	14.729	91	542360	50.45	ug/L	99
94) m,p-xylene	14.823	106	417679	103.05	ug/L	99
95) o-xylene	15.220	106	212594	52.43	ug/L	100
96) styrene	15.231	104	355082	51.07	ug/L	98
97) bromoform	15.498	173	89182	53.02	ug/L	99
99) isopropylbenzene	15.529	105	541259	48.24	ug/L	99
101) cyclohexanone	15.717	98	14141	420.91	ug/L	91
102) bromobenzene	15.921	156	154592	48.66	ug/L	98
103) 1,1,2,2-tetrachloroethane	15.832	83	139070	48.96	ug/L	99
104) trans-1,4-dichloro-2-b...	15.869	53	39021	54.85	ug/L	97
105) 1,2,3-trichloropropane	15.905	110	33625	49.42	ug/L	98
106) n-propylbenzene	15.911	120	146711	50.08	ug/L	100
107) 2-chlorotoluene	16.057	126	139330	48.13	ug/L	96
108) 4-chlorotoluene	16.151	126	143113	49.07	ug/L	99
109) 1,3,5-trimethylbenzene	16.041	105	463526	48.71	ug/L	99
110) tert-butylbenzene	16.371	119	400777	49.25	ug/L	99
111) pentachloroethane	16.465	167	101246	51.31	ug/L	98
112) 1,2,4-trimethylbenzene	16.413	105	485726	50.20	ug/L	99
113) sec-butylbenzene	16.570	105	607024	50.11	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166390.D
 Acq On : 14 Mar 2016 5:22 pm
 Operator : tracyk
 Sample : jc15990-9msd
 Misc : MS99560,V2A7074,5.0,,,,,25
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 10:22:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Mon Mar 14 16:41:39 2016
 Response via : Initial Calibration

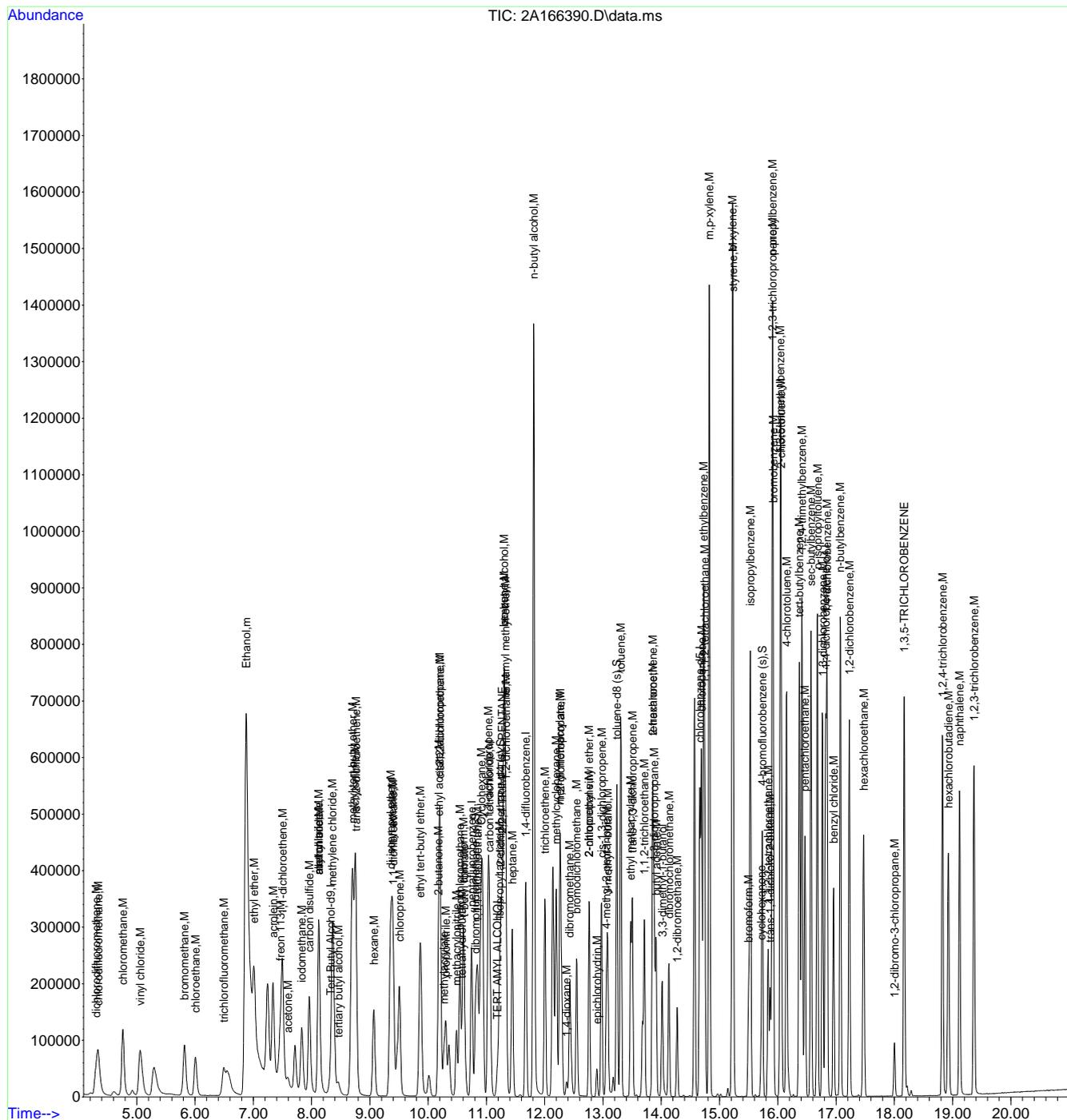
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,3-dichlorobenzene	16.768	146	295951	49.23	ug/L	98
115) p-isopropyltoluene	16.680	119	527871	51.26	ug/L	100
116) 1,4-dichlorobenzene	16.842	146	302719	50.17	ug/L	99
117) 1,2-dichlorobenzene	17.229	146	293714	50.94	ug/L	99
118) benzyl chloride	16.957	91	267840	52.26	ug/L	99
119) n-butylbenzene	17.072	92	277489	51.00	ug/L	99
120) 1,2-dibromo-3-chloropr...	18.003	75	25059	52.26	ug/L	95
121) 1,3,5-TRICHLOROENZENE	18.170	180	261244	50.87	ug/L	99
122) 1,2,4-trichlorobenzene	18.829	180	240064	51.35	ug/L	98
123) hexachlorobutadiene	18.929	225	113353	50.18	ug/L	97
124) naphthalene	19.117	128	462930	51.67	ug/L	98
125) 1,2,3-trichlorobenzene	19.368	180	214142	51.62	ug/L	99
126) hexachloroethane	17.475	201	100236	52.57	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
Data File : 2A166390.D
Acq On : 14 Mar 2016 5:22 pm
Operator : tracyk
Sample : jc15990-9msd
Misc : MS99560,V2A7074,5.0,,,,,25
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 10:22:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Mar 14 16:41:39 2016
Response via : Initial Calibration



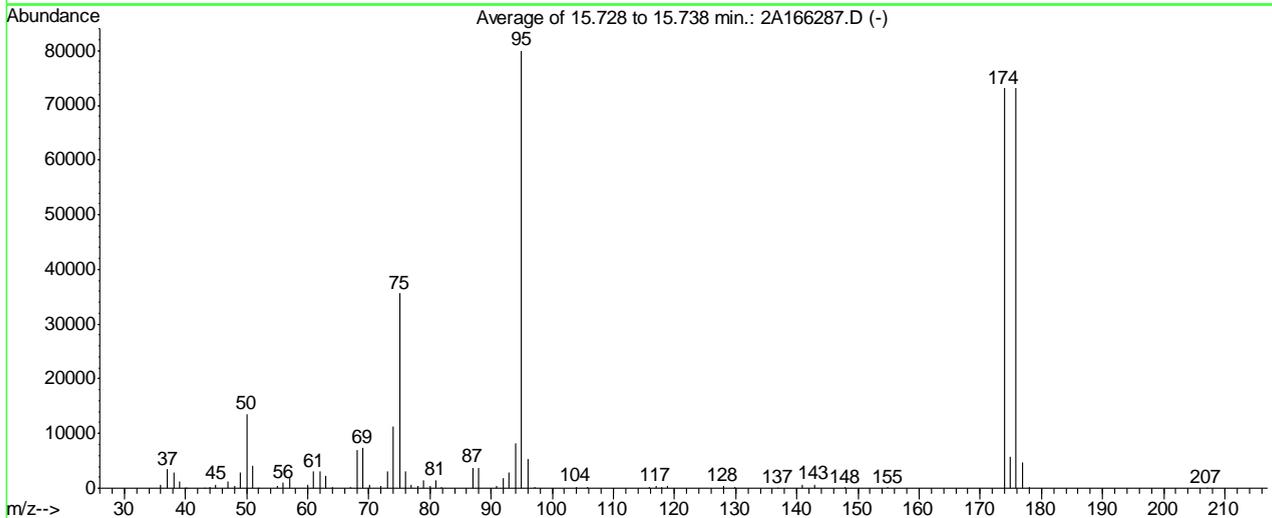
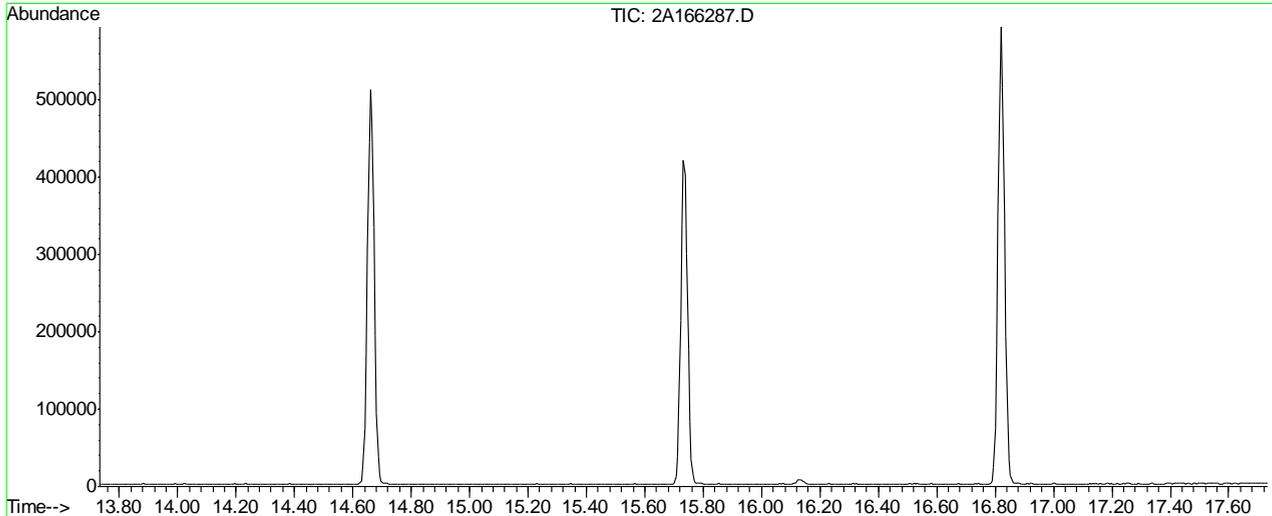
7.4.4
7

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\2A166287.D
 Acq On : 10 Mar 2016 6:24 pm
 Sample : bfb
 Misc : MS99332,V2A7071,5.0,,,,,1
 MS Integration Params: rteint.p

Vial: 10
 Operator: tracyk
 Inst : Instrumen
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um



AutoFind: Scans 2227, 2228, 2229; Background Corrected with Scan 2219

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	13554	PASS
75	95	30	60	44.5	35610	PASS
95	95	100	100	100.0	80037	PASS
96	95	5	9	6.7	5394	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.4	73122	PASS
175	174	5	9	7.9	5813	PASS
176	174	95	101	100.0	73096	PASS
177	176	5	9	6.5	4746	PASS

2A166287.D M2A7071.M Sat Mar 12 12:51:26 2016 MS2A

Average of 15.728 to 15.738 min.: 2A166287.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	628	49.00	2979	64.00	258	78.00	395
37.10	3453	50.00	13554	67.05	248	78.90	1470
38.05	2942	51.05	4017	68.00	7049	79.95	411
39.05	1288	52.00	71	69.00	7330	80.90	1448
39.90	63	55.00	343	70.05	554	81.95	314
40.10	76	56.00	949	72.00	396	86.95	3793
43.05	1	57.00	1761	73.00	3081	87.90	3710
44.00	296	60.00	623	74.00	11278	90.90	323
45.00	691	61.00	3067	75.00	35610	92.00	1898
47.00	1252	62.00	2986	76.00	3139	93.00	2952
48.00	432	63.00	2281	77.00	549	94.00	8227

Average of 15.728 to 15.738 min.: 2A166287.D

bfb

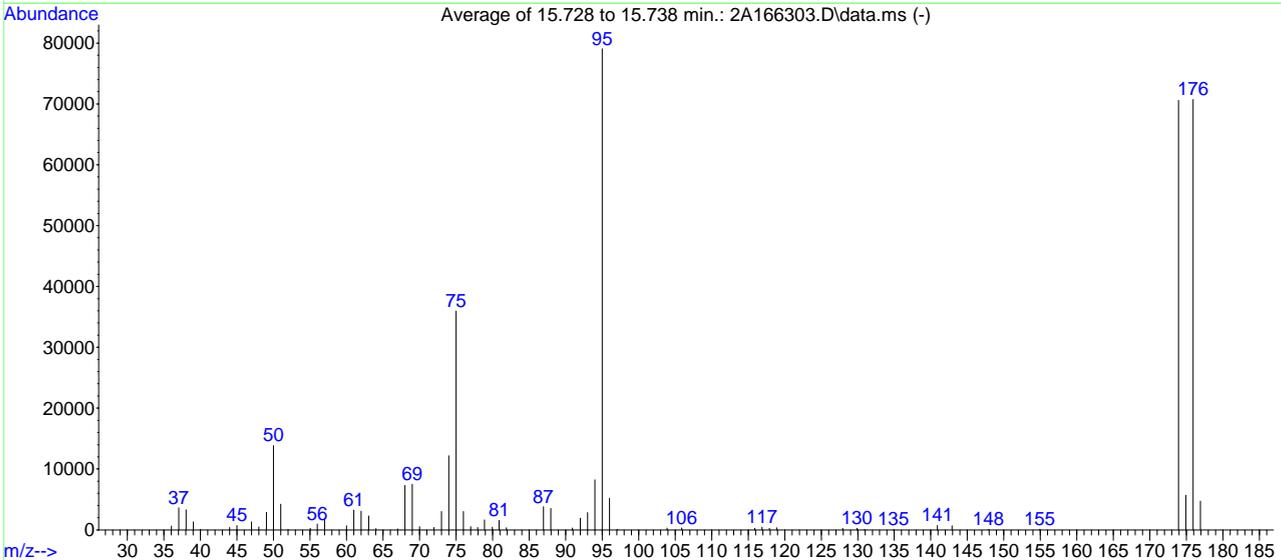
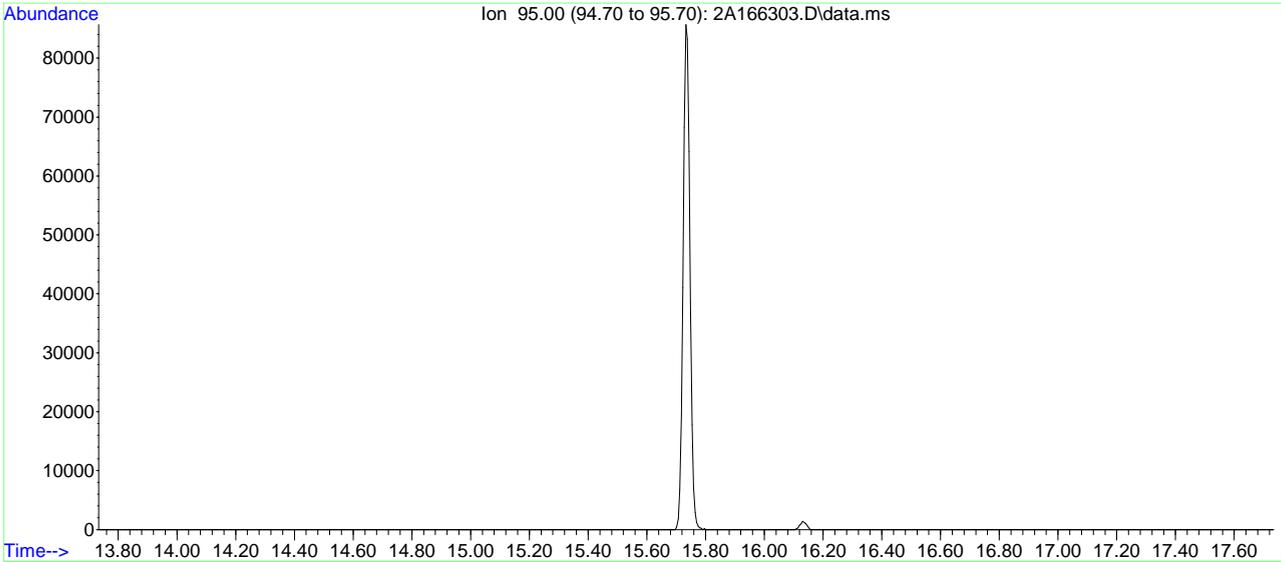
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	80037	136.90	73				
96.00	5394	140.90	667				
97.05	169	142.90	701				
103.90	303	147.90	191				
105.85	260	154.95	149				
115.95	238	173.90	73122				
116.90	401	174.90	5813				
117.85	240	175.90	73096				
118.90	378	176.90	4746				
127.95	321	177.95	138				
129.85	283	207.00	22				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\2A\2a7072-7075\2A166303.D Vial: 2
 Acq On : 11 Mar 2016 10:25 am Operator: tracyk
 Sample : BFB Inst : Instrument #1
 Misc : MS99332,V2A7070,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um



AutoFind: Scans 2227, 2228, 2229; Background Corrected with Scan 2219

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	13821	PASS
75	95	30	60	45.5	35965	PASS
95	95	100	100	100.0	79048	PASS
96	95	5	9	6.6	5203	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	89.3	70611	PASS
175	174	5	9	8.1	5698	PASS
176	174	95	101	100.2	70744	PASS
177	176	5	9	6.6	4703	PASS

7.5.2
 7

Average of 15.728 to 15.738 min.: 2A166303.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	645	51.00	4200	68.00	7302	79.95	458
37.05	3602	52.00	70	69.00	7503	80.90	1544
38.05	3279	55.05	248	70.00	521	81.90	341
39.05	1292	56.00	951	71.95	401	86.95	3810
40.00	68	57.00	1856	73.00	3036	87.95	3549
44.00	382	60.00	664	74.00	12191	90.95	321
45.00	715	61.00	3229	75.00	35965	92.00	1907
47.00	1335	62.00	3046	76.00	3000	93.00	2833
48.00	469	63.05	2290	77.00	518	94.00	8215
49.05	2863	64.05	219	77.95	413	95.00	79048
50.00	13821	67.00	156	78.90	1617	96.00	5203

Average of 15.728 to 15.738 min.: 2A166303.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.10	62	140.90	726				
103.90	294	142.90	664				
105.90	302	147.90	68				
115.90	263	154.90	76				
116.90	429	173.90	70611				
117.90	264	174.90	5698				
118.90	332	175.90	70744				
127.95	258	176.90	4703				
129.90	265						
130.90	64						
134.90	72						

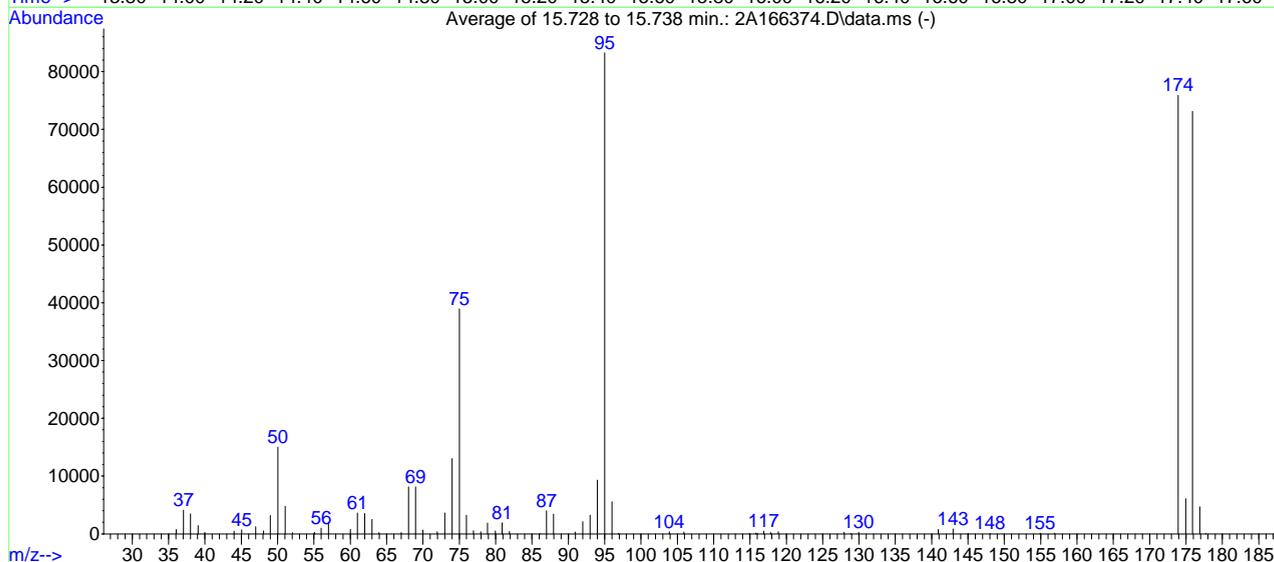
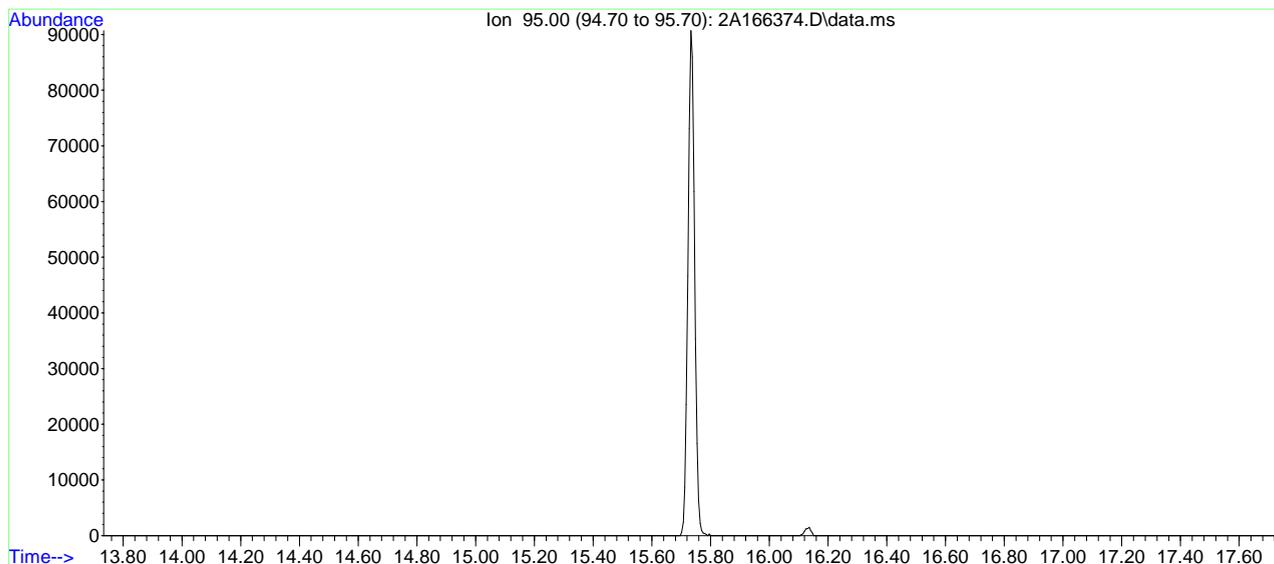
7.5.2

7

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\2A\2a7072-7075\2A166374.D Vial: 1
 Acq On : 14 Mar 2016 9:17 am Operator: tracyk
 Sample : bfb Inst : Instrument #1
 Misc : MS99478,V2A7074,5.0,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um



AutoFind: Scans 2227, 2228, 2229; Background Corrected with Scan 2219

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	14999	PASS
75	95	30	60	46.8	38939	PASS
95	95	100	100	100.0	83245	PASS
96	95	5	9	6.7	5537	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.1	75875	PASS
175	174	5	9	8.0	6093	PASS
176	174	95	101	96.4	73117	PASS
177	176	5	9	6.4	4683	PASS

2A166374.D M2A7071.M Tue Mar 15 10:16:39 2016 T

Average of 15.728 to 15.738 min.: 2A166374.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	779	51.05	4778	68.00	8124	79.95	527
37.05	4083	52.05	224	69.00	8137	80.90	1918
38.00	3479	55.05	252	70.00	651	81.90	415
39.05	1437	56.00	983	71.95	388	86.10	72
40.00	261	57.00	1975	73.00	3619	87.00	3997
44.00	461	60.00	800	74.00	13023	87.95	3444
45.05	716	61.00	3605	75.00	38939	90.95	312
47.00	1248	62.00	3516	76.00	3249	92.00	2134
48.05	524	63.00	2506	76.95	556	93.00	3216
49.00	3198	63.95	213	77.95	382	94.00	9306
50.05	14999	67.00	241	78.90	1848	95.00	83245

Average of 15.728 to 15.738 min.: 2A166374.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	5537	128.90	65	176.90	4683		
96.90	90	129.95	272	177.70	61		
103.90	390	140.90	771				
105.90	322	142.95	838				
114.90	62	145.00	61				
115.80	101	148.00	70				
116.00	121	154.95	147				
116.90	461	156.90	129				
117.85	237	173.90	75875				
118.90	351	174.95	6093				
127.95	267	175.90	73117				

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166288.D
 Acq On : 10 Mar 2016 7:00 pm
 Operator : tracyk
 Sample : ic7071-1
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 12 16:29:59 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	113037	500.00	ug/L	0.00
5) pentafluorobenzene	10.75	168	241883	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	350497	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	289520	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	152423	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.82	113	106405	49.92	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	99.84%
47) 1,2-dichloroethane-d4 (s)	11.25	65	106338	48.03	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	96.06%
76) toluene-d8 (s)	13.24	98	374514	48.83	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	97.66%
100) 4-bromofluorobenzene (s)	15.74	95	133891	50.11	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.22%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.46	59	1902	4.72	ug/L	# 1
3) Ethanol	6.86	45	2087	99.11	ug/L	# 46
10) chloromethane	4.74	50	4119	1.04	ug/L	87
11) vinyl chloride	5.04	62	3060	0.85	ug/L	91
13) chloroethane	6.00	64	1725	0.88	ug/L	75
19) 1,1-dichloroethene	7.51	61	3696	0.99	ug/L	84
28) methyl tert butyl ether	8.71	73	6630	0.96	ug/L	91
29) trans-1,2-dichloroethene	8.77	61	3442	0.93	ug/L	95
30) di-isopropyl ether	9.36	45	9477	1.01	ug/L	88
32) 1,1-dichloroethane	9.41	63	4592	0.97	ug/L	84
33) chloroprene	9.50	53	3796	0.99	ug/L	96
34) acrylonitrile	8.75	53	4325	4.93	ug/L	90
36) ethyl tert-butyl ether	9.87	59	7635	0.93	ug/L	97
38) 2,2-dichloropropane	10.19	77	3800	1.08	ug/L	94
39) cis-1,2-dichloroethene	10.21	96	3086	1.05	ug/L	85
42) bromochloromethane	10.55	128	1150	0.83	ug/L	75
44) chloroform	10.61	85	3011	1.04	ug/L	86
50) 1,1,1-trichloroethane	10.86	97	3449	0.97	ug/L	94
55) carbon tetrachloride	11.05	117	3279	0.98	ug/L	96
56) 1,1-dichloropropene	11.03	75	3225	0.95	ug/L	94
60) benzene	11.31	78	9900	0.97	ug/L	100
64) 1,2-dichloroethane	11.33	62	2814	0.91	ug/L	88
66) trichloroethene	12.00	95	2609	1.01	ug/L	92
71) 1,2-dichloropropane	12.28	63	2475	0.90	ug/L	89
72) dibromomethane	12.43	93	1355	0.89	ug/L	94
73) methylcyclohexane	12.20	83	3970	1.01	ug/L	86
74) bromodichloromethane	12.55	83	3300	0.98	ug/L	97
75) cis-1,3-dichloropropene	12.98	75	3849	0.89	ug/L	96
78) toluene	13.31	92	5605	0.95	ug/L	96
80) trans-1,3-dichloropropene	13.51	75	3466	0.93	ug/L	95
81) ethyl methacrylate	13.48	69	2612	0.92	ug/L	87
82) 1,1,2-trichloroethane	13.71	83	1791	0.99	ug/L	80
85) tetrachloroethene	13.86	164	1957	0.93	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166288.D
 Acq On : 10 Mar 2016 7:00 pm
 Operator : tracyk
 Sample : ic7071-1
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 12 16:29:59 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

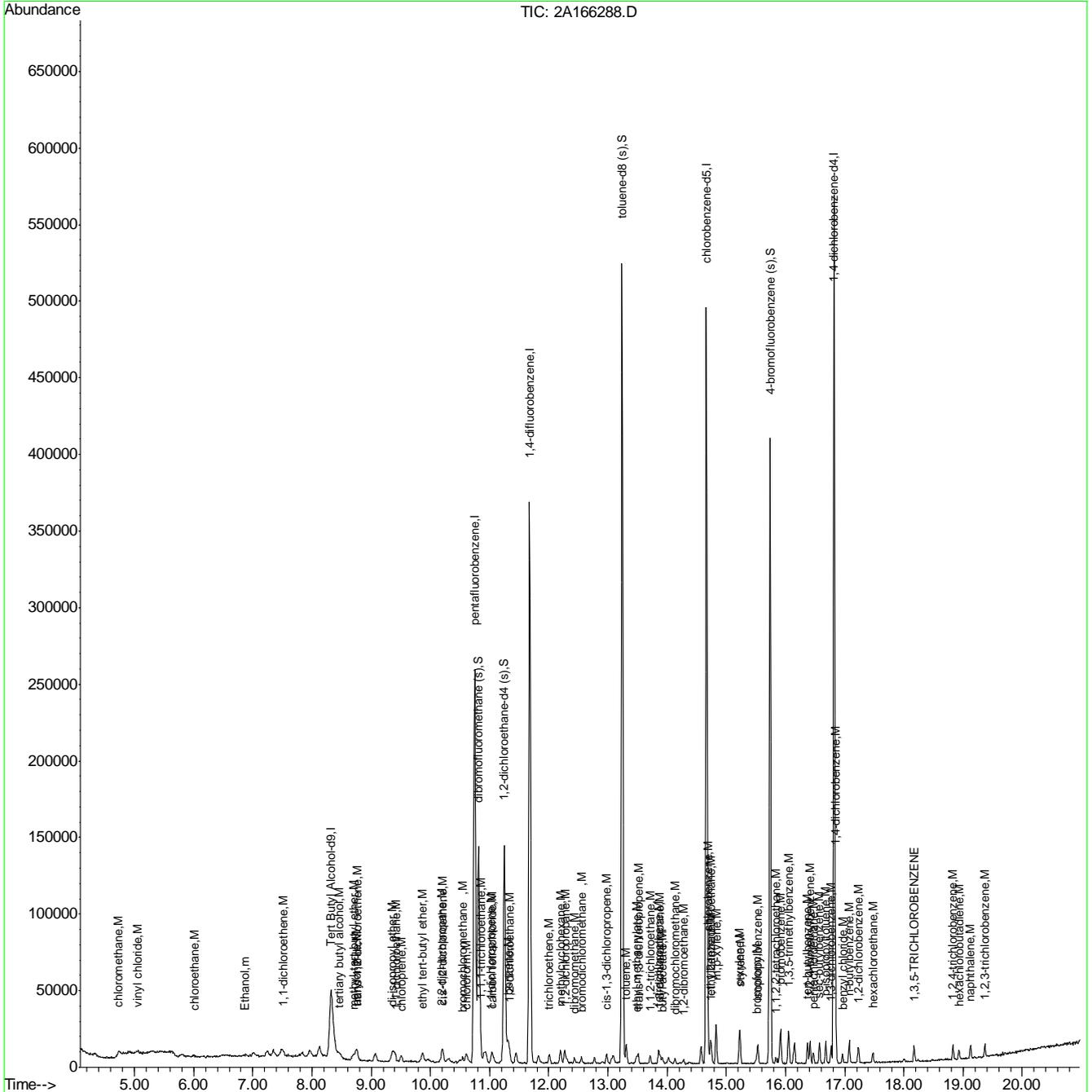
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 1,3-dichloropropane	13.88	76	2974	0.87	ug/L	90
87) butyl acetate	13.92	56	1230	0.97	ug/L #	72
89) dibromochloromethane	14.13	129	2247	0.88	ug/L	96
90) 1,2-dibromoethane	14.27	107	1779	0.84	ug/L	97
91) chlorobenzene	14.69	112	6090	0.95	ug/L	90
92) 1,1,1,2-tetrachloroethane	14.75	131	2369	0.96	ug/L	92
93) ethylbenzene	14.73	91	10296	0.96	ug/L	96
94) m,p-xylene	14.83	106	7749	1.89	ug/L	97
95) o-xylene	15.22	106	3780	0.93	ug/L	92
96) styrene	15.24	104	6518	0.92	ug/L	98
97) bromoform	15.50	173	1409	0.81	ug/L	95
99) isopropylbenzene	15.53	105	9719	0.93	ug/L	99
102) bromobenzene	15.92	156	2738	0.93	ug/L	88
103) 1,1,1,2-tetrachloroethane	15.84	83	2430	0.93	ug/L	94
109) 1,3,5-trimethylbenzene	16.05	105	8163	0.93	ug/L	97
110) tert-butylbenzene	16.37	119	7090	0.94	ug/L	99
111) pentachloroethane	16.47	167	1609	0.87	ug/L	94
112) 1,2,4-trimethylbenzene	16.42	105	8216	0.92	ug/L	99
113) sec-butylbenzene	16.57	105	10441	0.92	ug/L	100
114) 1,3-dichlorobenzene	16.77	146	5328	0.97	ug/L	97
115) p-isopropyltoluene	16.68	119	9093	0.95	ug/L	92
116) 1,4-dichlorobenzene	16.85	146	5257	0.95	ug/L	98
117) 1,2-dichlorobenzene	17.23	146	5099	0.95	ug/L	95
118) benzyl chloride	16.96	91	4762	1.02	ug/L	96
119) n-butylbenzene	17.08	92	4868	0.96	ug/L	98
121) 1,3,5-TRICHLOROBENZENE	18.17	180	4366	0.90	ug/L	99
122) 1,2,4-trichlorobenzene	18.83	180	3864	0.86	ug/L	91
123) hexachlorobutadiene	18.93	225	1900	0.88	ug/L	86
124) naphthalene	19.12	128	7339	0.86	ug/L	96
125) 1,2,3-trichlorobenzene	19.37	180	3311	0.83	ug/L	90
126) hexachloroethane	17.47	201	1468	0.81	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166288.D
 Acq On : 10 Mar 2016 7:00 pm
 Operator : tracyk
 Sample : ic7071-1
 Misc : MS99332,V2A7071,5.0,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 12 16:29:59 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration



7.6.1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166289.D
 Acq On : 10 Mar 2016 7:29 pm
 Operator : tracyk
 Sample : ic7071-0.5
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 12 16:27:35 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	104593	500.00	ug/L	0.00
5) pentafluorobenzene	10.75	168	236839	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	344284	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	285757	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	151547	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.82	113	105277	50.44	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	100.88%
47) 1,2-dichloroethane-d4 (s)	11.25	65	106778	49.25	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	98.50%
76) toluene-d8 (s)	13.24	98	369306	49.02	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	98.04%
100) 4-bromofluorobenzene (s)	15.73	95	132912	50.04	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.08%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
29) trans-1,2-dichloroethene	8.76	61	1760	0.49	ug/L	86
33) chloroprene	9.51	53	1823	0.49	ug/L	78
60) benzene	11.31	78	5261	0.53	ug/L	99
66) trichloroethene	12.00	95	1217	0.48	ug/L	79
72) dibromomethane	12.43	93	612	0.41	ug/L	84
73) methylcyclohexane	12.20	83	1823	0.47	ug/L	95
74) bromodichloromethane	12.55	83	1782	0.54	ug/L	90
75) cis-1,3-dichloropropene	12.98	75	2011	0.47	ug/L	80
78) toluene	13.31	92	3152	0.54	ug/L	92
80) trans-1,3-dichloropropene	13.51	75	1808	0.49	ug/L	94
82) 1,1,2-trichloroethane	13.71	83	913	0.51	ug/L	93
85) tetrachloroethene	13.86	164	955	0.46	ug/L	88
86) 1,3-dichloropropane	13.88	76	1613	0.48	ug/L	88
91) chlorobenzene	14.69	112	3141	0.50	ug/L	93
92) 1,1,1,2-tetrachloroethane	14.74	131	1141	0.47	ug/L	92
93) ethylbenzene	14.73	91	5480	0.52	ug/L	99
94) m,p-xylene	14.83	106	3889	0.96	ug/L	98
95) o-xylene	15.22	106	2048	0.51	ug/L	94
96) styrene	15.23	104	3344	0.48	ug/L	92
99) isopropylbenzene	15.53	105	5090	0.49	ug/L	94
102) bromobenzene	15.92	156	1463	0.50	ug/L	81
103) 1,1,2,2-tetrachloroethane	15.83	83	1279	0.49	ug/L	83
109) 1,3,5-trimethylbenzene	16.04	105	4383	0.50	ug/L	95
110) tert-butylbenzene	16.37	119	3654	0.49	ug/L	92
112) 1,2,4-trimethylbenzene	16.42	105	4321	0.49	ug/L	94
113) sec-butylbenzene	16.57	105	5451	0.48	ug/L	98
114) 1,3-dichlorobenzene	16.77	146	2767	0.51	ug/L	95
115) p-isopropyltoluene	16.68	119	4598	0.48	ug/L	97
116) 1,4-dichlorobenzene	16.85	146	2752	0.50	ug/L	90
117) 1,2-dichlorobenzene	17.23	146	2488	0.47	ug/L	89
118) benzyl chloride	16.96	91	2395	0.52	ug/L #	88
119) n-butylbenzene	17.07	92	2244	0.44	ug/L	97
121) 1,3,5-TRICHLOROBENZENE	18.17	180	2206	0.46	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166289.D
 Acq On : 10 Mar 2016 7:29 pm
 Operator : tracyk
 Sample : ic7071-0.5
 Misc : MS99332,V2A7071,5.0,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 12 16:27:35 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

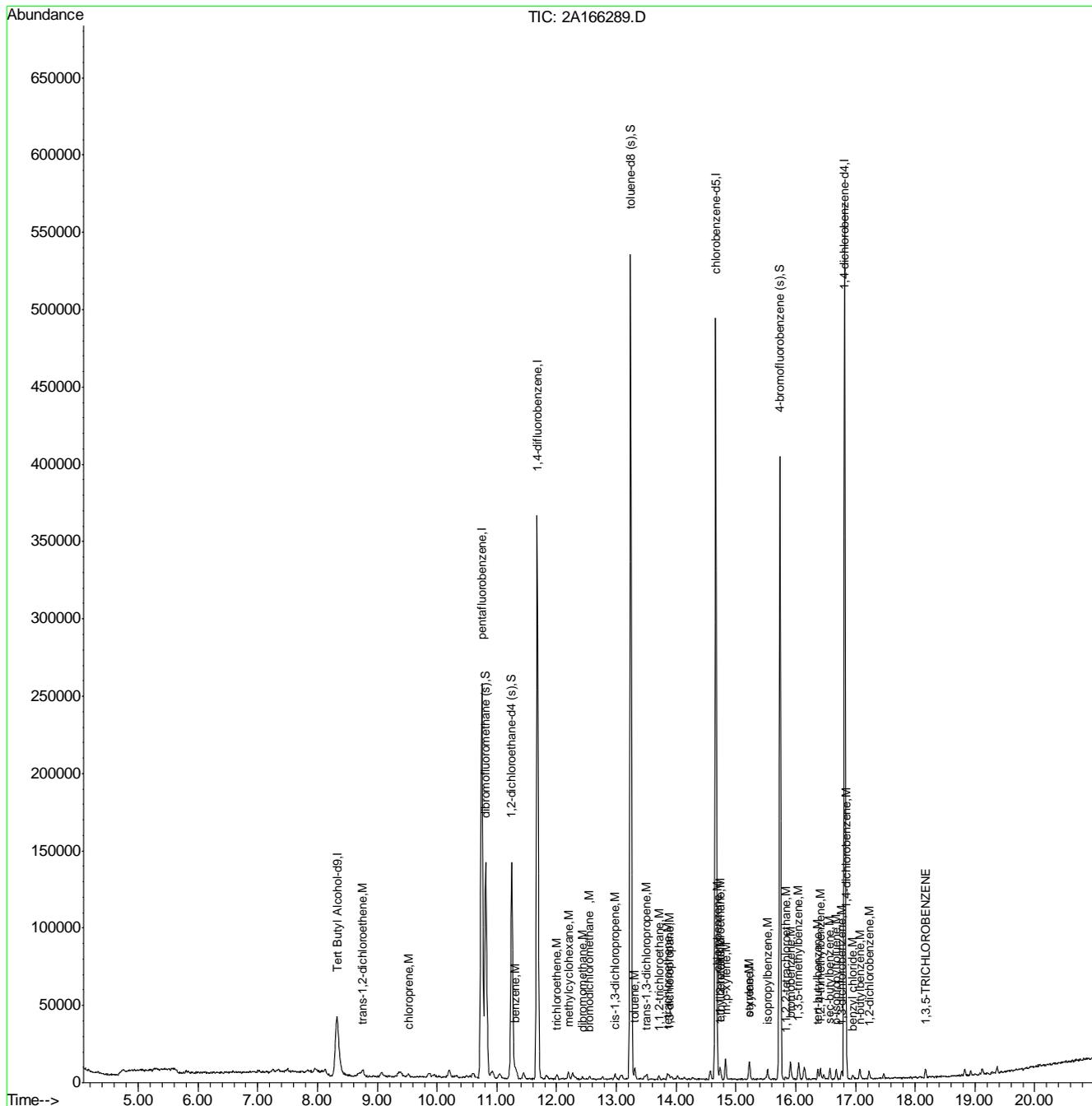
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
--------------------	------	------	----------	------	-------	----------

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166289.D
 Acq On : 10 Mar 2016 7:29 pm
 Operator : tracyk
 Sample : ic7071-0.5
 Misc : MS99332,V2A7071,5.0,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 12 16:27:35 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration



7.6.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166291.D
 Acq On : 10 Mar 2016 8:28 pm
 Operator : tracyk
 Sample : ic7071-2
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 14 16:37:22 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	99772	500.00	ug/L	0.00
5) pentafluorobenzene	10.75	168	234137	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	336620	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	281354	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	151415	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.82	113	104196	50.50	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	101.00%
47) 1,2-dichloroethane-d4 (s)	11.25	65	107151	50.00	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	100.00%
76) toluene-d8 (s)	13.24	98	364469	49.48	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	98.96%
100) 4-bromofluorobenzene (s)	15.73	95	132097	49.77	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	99.54%

Target Compounds

Qvalue

2) tertiary butyl alcohol	8.45	59	3300	9.28	ug/L	47
3) Ethanol	6.88	45	5868	315.72	ug/L #	80
8) dichlorodifluoromethane	4.31	85	5097	2.13	ug/L	94
10) chloromethane	4.75	50	8182	2.13	ug/L	96
11) vinyl chloride	5.04	62	6764	1.94	ug/L	95
12) bromomethane	5.80	94	4564	2.30	ug/L	89
13) chloroethane	5.99	64	4033	2.13	ug/L	91
14) trichlorofluoromethane	6.49	101	6114	1.76	ug/L	82
16) ethyl ether	7.01	74	2971	2.21	ug/L #	80
19) 1,1-dichloroethene	7.50	61	7604	2.10	ug/L	91
23) iodomethane	7.83	142	8561	2.02	ug/L	99
24) iso-butyl alcohol	11.30	74	1565	19.80	ug/L #	48
25) carbon disulfide	7.96	76	17026	2.14	ug/L	96
26) methylene chloride	8.35	84	5659	2.17	ug/L	97
28) methyl tert butyl ether	8.70	73	14999	2.25	ug/L	97
29) trans-1,2-dichloroethene	8.77	61	7445	2.08	ug/L	87
30) di-isopropyl ether	9.36	45	18502	2.04	ug/L	95
32) 1,1-dichloroethane	9.40	63	9916	2.16	ug/L	98
33) chloroprene	9.51	53	7482	2.02	ug/L	98
34) acrylonitrile	8.75	53	9185	10.82	ug/L	91
36) ethyl tert-butyl ether	9.86	59	15636	1.97	ug/L	97
38) 2,2-dichloropropane	10.20	77	7773	2.28	ug/L	96
39) cis-1,2-dichloroethene	10.20	96	6712	2.37	ug/L	94
42) bromochloromethane	10.54	128	2901	2.16	ug/L	97
44) chloroform	10.61	85	6456	2.31	ug/L	88
50) 1,1,1-trichloroethane	10.85	97	7599	2.20	ug/L	96
55) carbon tetrachloride	11.05	117	6824	2.12	ug/L	95
56) 1,1-dichloropropene	11.03	75	6882	2.11	ug/L	96
60) benzene	11.31	78	21108	2.16	ug/L	98
61) tert-amyl methyl ether	11.32	87	3018	1.97	ug/L	95
64) 1,2-dichloroethane	11.33	62	6473	2.18	ug/L	95
66) trichloroethene	12.01	95	5029	2.03	ug/L	96
68) methyl methacrylate	12.27	100	1086	1.98	ug/L #	66

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166291.D
 Acq On : 10 Mar 2016 8:28 pm
 Operator : tracyk
 Sample : ic7071-2
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 14 16:37:22 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 2-chloroethyl vinyl ether	12.76	63	2905m	9.37	ug/L	
71) 1,2-dichloropropane	12.27	63	5506	2.09	ug/L	98
72) dibromomethane	12.43	93	3061	2.10	ug/L	97
73) methylcyclohexane	12.19	83	7808	2.07	ug/L	90
74) bromodichloromethane	12.55	83	6843	2.11	ug/L	89
75) cis-1,3-dichloropropene	12.98	75	8502	2.05	ug/L	94
77) 4-methyl-2-pentanone	13.06	58	1581	1.96	ug/L	93
78) toluene	13.31	92	11800	2.07	ug/L	100
79) 3-methyl-1-butanol	13.09	55	4522	50.09	ug/L	93
80) trans-1,3-dichloropropene	13.50	75	7526	2.09	ug/L	97
81) ethyl methacrylate	13.48	69	5816	2.13	ug/L	96
82) 1,1,2-trichloroethane	13.71	83	3545	2.04	ug/L	94
85) tetrachloroethene	13.86	164	4254	2.09	ug/L	91
86) 1,3-dichloropropane	13.88	76	6871	2.08	ug/L	96
87) butyl acetate	13.91	56	2459	1.99	ug/L #	83
88) 3,3-dimethyl-1-butanol	14.02	57	4248	22.67	ug/L	91
89) dibromochloromethane	14.13	129	5203	2.11	ug/L	96
90) 1,2-dibromoethane	14.28	107	4265	2.08	ug/L	93
91) chlorobenzene	14.69	112	12852	2.06	ug/L	90
92) 1,1,1,2-tetrachloroethane	14.74	131	4917	2.04	ug/L	97
93) ethylbenzene	14.73	91	22076	2.11	ug/L	94
94) m,p-xylene	14.83	106	16494	4.14	ug/L	95
95) o-xylene	15.22	106	8196	2.07	ug/L	84
96) styrene	15.23	104	14327	2.09	ug/L	97
97) bromoform	15.50	173	3358	1.98	ug/L	93
99) isopropylbenzene	15.53	105	21528	2.08	ug/L	97
102) bromobenzene	15.92	156	6149	2.11	ug/L	93
103) 1,1,2,2-tetrachloroethane	15.84	83	5440	2.09	ug/L	94
105) 1,2,3-trichloropropane	15.91	110	1369	2.27	ug/L	83
106) n-propylbenzene	15.91	120	5578	2.07	ug/L	95
107) 2-chlorotoluene	16.06	126	5625	2.13	ug/L	95
108) 4-chlorotoluene	16.15	126	5488	2.05	ug/L	100
109) 1,3,5-trimethylbenzene	16.05	105	18367	2.10	ug/L	95
110) tert-butylbenzene	16.37	119	15882	2.12	ug/L	98
111) pentachloroethane	16.47	167	3714	2.02	ug/L	97
112) 1,2,4-trimethylbenzene	16.41	105	18600	2.09	ug/L	96
113) sec-butylbenzene	16.57	105	23193	2.06	ug/L	97
114) 1,3-dichlorobenzene	16.77	146	11577	2.12	ug/L	98
115) p-isopropyltoluene	16.68	119	19653	2.07	ug/L	99
116) 1,4-dichlorobenzene	16.85	146	11838	2.14	ug/L	98
117) 1,2-dichlorobenzene	17.23	146	11149	2.10	ug/L	99
118) benzyl chloride	16.96	91	9507	2.05	ug/L	97
119) n-butylbenzene	17.07	92	10774	2.13	ug/L	92
120) 1,2-dibromo-3-chloropropan	18.00	75	874	2.00	ug/L	91
121) 1,3,5-TRICHLOROENZENE	18.17	180	9650	2.00	ug/L	98
122) 1,2,4-trichlorobenzene	18.82	180	8426	1.89	ug/L	97
123) hexachlorobutadiene	18.93	225	4205	1.97	ug/L	91
124) naphthalene	19.12	128	16818	1.98	ug/L	97
125) 1,2,3-trichlorobenzene	19.37	180	7557	1.91	ug/L	95
126) hexachloroethane	17.47	201	3453	1.91	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A166291.D
Acq On : 10 Mar 2016 8:28 pm
Operator : tracyk
Sample : ic7071-2
Misc : MS99332,V2A7071,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 14 16:37:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Sat Mar 12 14:51:45 2016
Response via : Initial Calibration

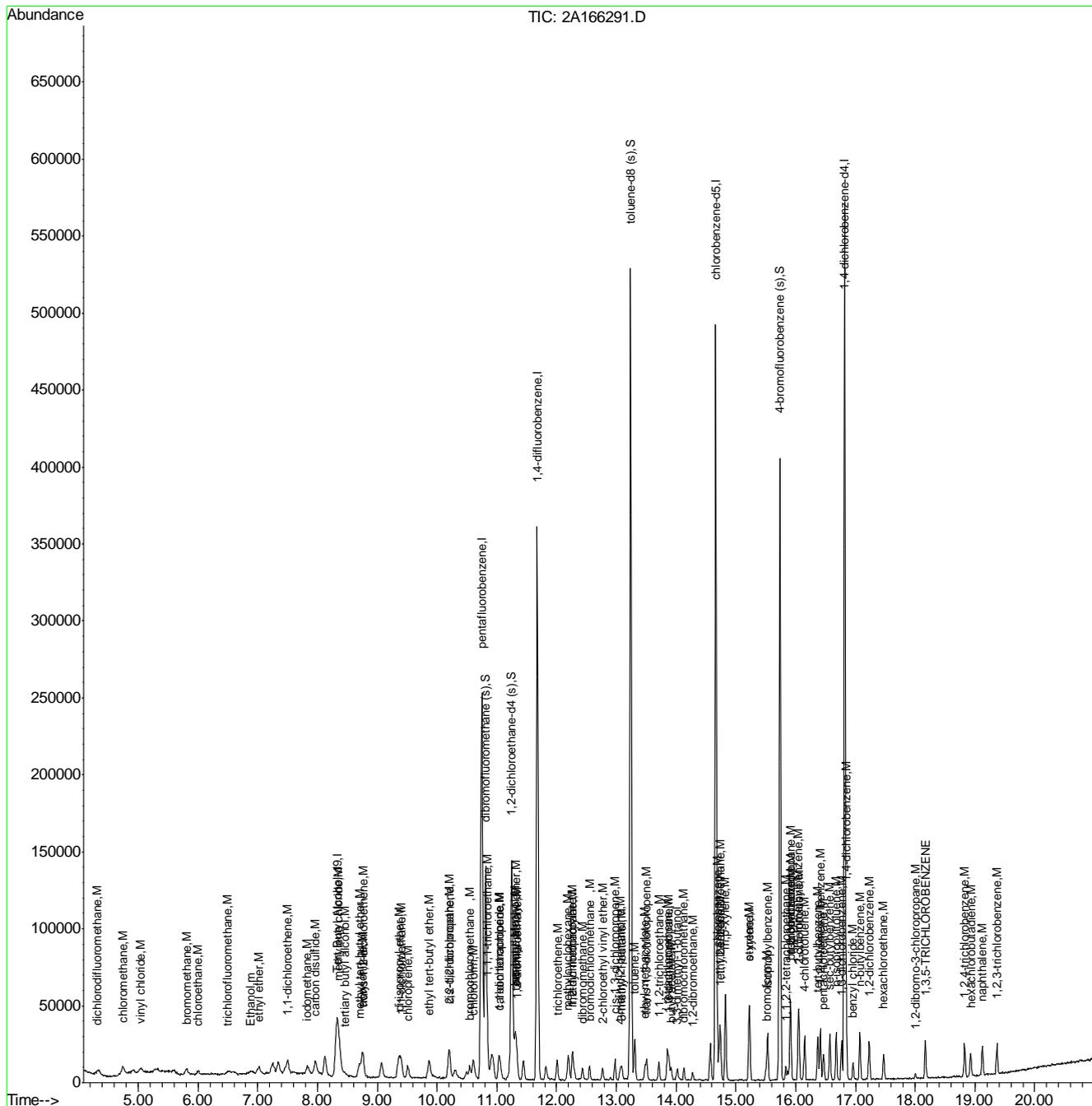
Internal Standards R.T. QIon Response Conc Units Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166291.D
 Acq On : 10 Mar 2016 8:28 pm
 Operator : tracyk
 Sample : ic7071-2
 Misc : MS99332,V2A7071,5.0,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 14 16:37:22 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration



7.6.3
 7

Manual Integration Approval Summary

Sample Number: V2A7071-IC7071 Method: SW846 8260C
Lab FileID: 2A166291.D Analyst approved: 03/14/16 16:46 Jessica Reitan-Chu
Injection Time: 03/10/16 20:28 Supervisor approved: 03/14/16 16:57 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
2-Chloroethyl vinyl ether	110-75-8		12.76	Missed peak

7.6.3.1

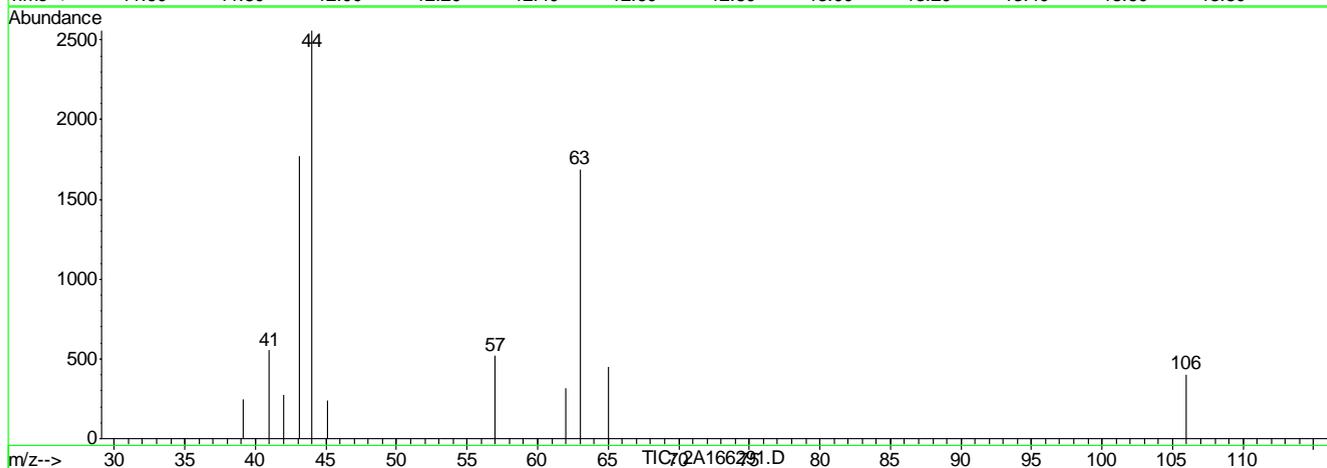
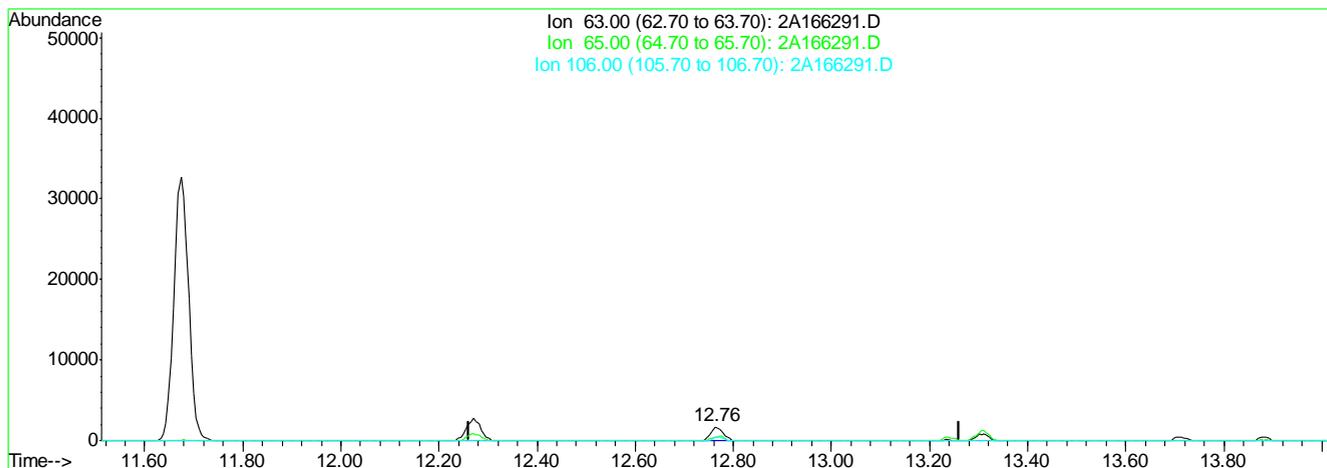
7

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\rawdata\2A166291.D Vial: 14
 Acq On : 10 Mar 2016 8:28 pm Operator: tracyk
 Sample : ic7071-2 Inst : Instrumen
 Misc : MS99332,V2A7071,5.0,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Quant Time: Mar 14 16:25:40 2016 Results File: M2A7071.RES

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Sat Mar 12 15:58:04 2016
 Response via : Multiple Level Calibration



(70) 2-chloroethyl vinyl ether (M)

12.76min 9.33ug/L

response 2906

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	26.78
106.00	24.10	23.82
0.00	0.00	0.00

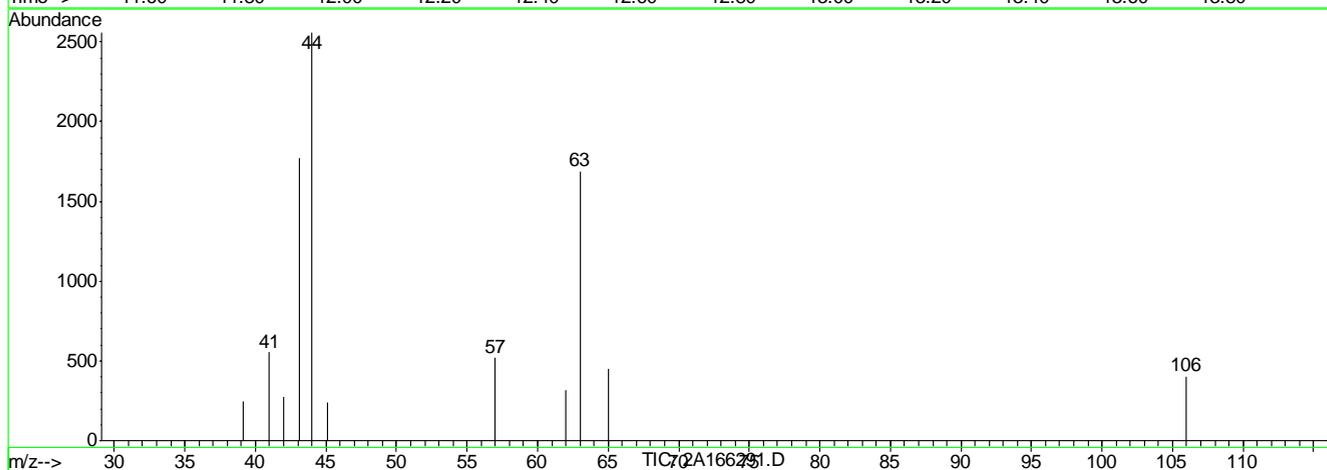
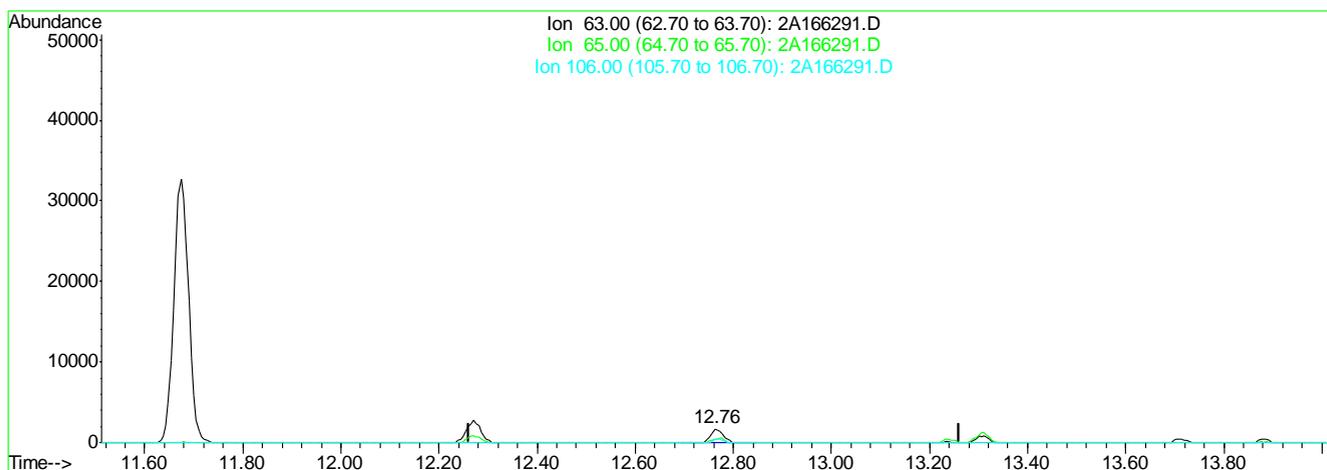
7.6.3.2
7

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2A166291.D Vial: 14
 Acq On : 10 Mar 2016 8:28 pm Operator: tracyk
 Sample : ic7071-2 Inst : Instrumen
 Misc : MS99332,V2A7071,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Quant Time: Mar 14 16:33:19 2016 Results File: M2A7071.RES

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Mon Mar 14 16:37:00 2016
 Response via : Multiple Level Calibration



(70) 2-chloroethyl vinyl ether (M)

12.76min 9.37ug/L m

response 2905

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	26.78
106.00	24.10	23.82
0.00	0.00	0.00

7.633
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166292.D
 Acq On : 10 Mar 2016 8:58 pm
 Operator : tracyk
 Sample : ic7071-5
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 14 16:41:10 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	96948	500.00	ug/L	0.00
5) pentafluorobenzene	10.75	168	235739	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	338755	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	286147	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	151169	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.81	113	103833	49.98	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	99.96%
47) 1,2-dichloroethane-d4 (s)	11.25	65	107254	49.71	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	99.42%
76) toluene-d8 (s)	13.24	98	369018	49.78	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.56%
100) 4-bromofluorobenzene (s)	15.73	95	134256	50.67	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	101.34%

Target Compounds

Qvalue

2) tertiary butyl alcohol	8.45	59	8531	24.68	ug/L	76
3) Ethanol	6.87	45	10598	586.83	ug/L	98
4) 1,4-dioxane	12.38	88	1880	101.66	ug/L	74
7) chlorodifluoromethane	4.33	51	15239	5.12	ug/L	98
8) dichlorodifluoromethane	4.30	85	11620	4.83	ug/L	98
10) chloromethane	4.73	50	19348	5.01	ug/L	99
11) vinyl chloride	5.03	62	16788	4.77	ug/L	96
12) bromomethane	5.80	94	9766	4.89	ug/L	94
13) chloroethane	5.99	64	9443	4.96	ug/L	97
14) trichlorofluoromethane	6.49	101	14817	4.24	ug/L	99
16) ethyl ether	7.02	74	6861	5.08	ug/L	78
18) acrolein	7.33	56	27433	50.35	ug/L	99
19) 1,1-dichloroethene	7.50	61	17728	4.86	ug/L	97
21) allyl chloride	8.13	76	7159	4.76	ug/L	93
22) acetonitrile	8.11	40	10549	53.58	ug/L	89
23) iodomethane	7.83	142	20461	4.79	ug/L	97
24) iso-butyl alcohol	11.31	74	4198	52.76	ug/L #	69
25) carbon disulfide	7.96	76	39314	4.92	ug/L	89
26) methylene chloride	8.35	84	13128	5.00	ug/L	96
27) methyl acetate	8.12	74	1675	4.44	ug/L #	46
28) methyl tert butyl ether	8.70	73	33476	4.99	ug/L	99
29) trans-1,2-dichloroethene	8.76	61	17923	4.96	ug/L	98
30) di-isopropyl ether	9.36	45	45021	4.93	ug/L	99
32) 1,1-dichloroethane	9.40	63	22962	4.97	ug/L	97
33) chloroprene	9.50	53	18546	4.96	ug/L	97
34) acrylonitrile	8.75	53	21370	25.01	ug/L	97
36) ethyl tert-butyl ether	9.86	59	38111	4.77	ug/L	99
37) ethyl acetate	10.18	45	1733	5.38	ug/L #	40
38) 2,2-dichloropropane	10.19	77	17853	5.20	ug/L	96
39) cis-1,2-dichloroethene	10.20	96	14699	5.15	ug/L	98
40) methylacrylate	10.28	85	1627	4.77	ug/L #	73
41) propionitrile	10.31	54	15862	50.32	ug/L	94
42) bromochloromethane	10.54	128	6499	4.80	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166292.D
 Acq On : 10 Mar 2016 8:58 pm
 Operator : tracyk
 Sample : ic7071-5
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 14 16:41:10 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) chloroform	10.60	85	14079	5.01	ug/L	93
45) t-butyl formate	10.62	59	6461	4.40	ug/L	84
48) freon 113	7.46	151	7774	4.72	ug/L	96
50) 1,1,1-trichloroethane	10.85	97	17009	4.89	ug/L	95
51) Cyclohexane	10.91	84	17036	4.81	ug/L	97
53) epichlorohydrin	12.90	57	4261	25.36	ug/L	92
54) n-butyl alcohol	11.82	56	16090	262.59	ug/L	96
55) carbon tetrachloride	11.05	117	15917	4.92	ug/L	99
56) 1,1-dichloropropene	11.03	75	16388	5.00	ug/L	99
57) hexane	9.06	57	17532	5.32	ug/L	95
58) TERT AMYL ALCOHOL	11.19	73	3064	27.18	ug/L	95
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	43316	4.96	ug/L	95
60) benzene	11.30	78	49296	5.01	ug/L	95
61) tert-amyl methyl ether	11.32	87	7184	4.65	ug/L	93
62) heptane	11.44	57	9345	5.24	ug/L	97
63) isopropyl acetate	11.22	43	28477	4.83	ug/L	94
64) 1,2-dichloroethane	11.33	62	15296	5.13	ug/L	99
66) trichloroethene	12.00	95	12472	5.00	ug/L	95
68) methyl methacrylate	12.26	100	2651	4.81	ug/L #	85
70) 2-chloroethyl vinyl ether	12.77	63	7173m	22.98	ug/L	
71) 1,2-dichloropropane	12.27	63	13456	5.07	ug/L	99
72) dibromomethane	12.43	93	7142	4.87	ug/L	96
73) methylcyclohexane	12.20	83	18780	4.96	ug/L	92
74) bromodichloromethane	12.55	83	16034	4.91	ug/L	99
75) cis-1,3-dichloropropene	12.98	75	20306	4.87	ug/L	99
77) 4-methyl-2-pentanone	13.07	58	4050	4.98	ug/L	97
78) toluene	13.31	92	28561	4.99	ug/L	97
79) 3-methyl-1-butanol	13.09	55	9655	106.27	ug/L	97
80) trans-1,3-dichloropropene	13.50	75	17738	4.90	ug/L	97
81) ethyl methacrylate	13.47	69	13544	4.94	ug/L	97
82) 1,1,2-trichloroethane	13.71	83	8798	5.04	ug/L	94
83) 2-hexanone	13.86	58	3612	5.12	ug/L	92
85) tetrachloroethene	13.86	164	10375	5.00	ug/L	88
86) 1,3-dichloropropane	13.88	76	16572	4.93	ug/L	99
87) butyl acetate	13.91	56	6170	4.92	ug/L	94
88) 3,3-dimethyl-1-butanol	14.02	57	10047	52.73	ug/L	96
89) dibromochloromethane	14.13	129	11783	4.69	ug/L	99
90) 1,2-dibromoethane	14.27	107	10322	4.94	ug/L	98
91) chlorobenzene	14.69	112	31254	4.92	ug/L	94
92) 1,1,1,2-tetrachloroethane	14.74	131	12148	4.96	ug/L	98
93) ethylbenzene	14.73	91	53296	5.02	ug/L	99
94) m,p-xylene	14.82	106	40304	9.96	ug/L	97
95) o-xylene	15.22	106	19755	4.90	ug/L	96
96) styrene	15.23	104	34296	4.91	ug/L	98
97) bromoform	15.50	173	8152	4.71	ug/L	96
99) isopropylbenzene	15.53	105	50803	4.91	ug/L	99
101) cyclohexanone	15.72	98	1914	63.52	ug/L	78
102) bromobenzene	15.92	156	14671	5.04	ug/L	99
103) 1,1,2,2-tetrachloroethane	15.83	83	13091	5.04	ug/L	96
104) trans-1,4-dichloro-2-buten	15.87	53	3250	4.96	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166292.D
 Acq On : 10 Mar 2016 8:58 pm
 Operator : tracyk
 Sample : ic7071-5
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 14 16:41:10 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

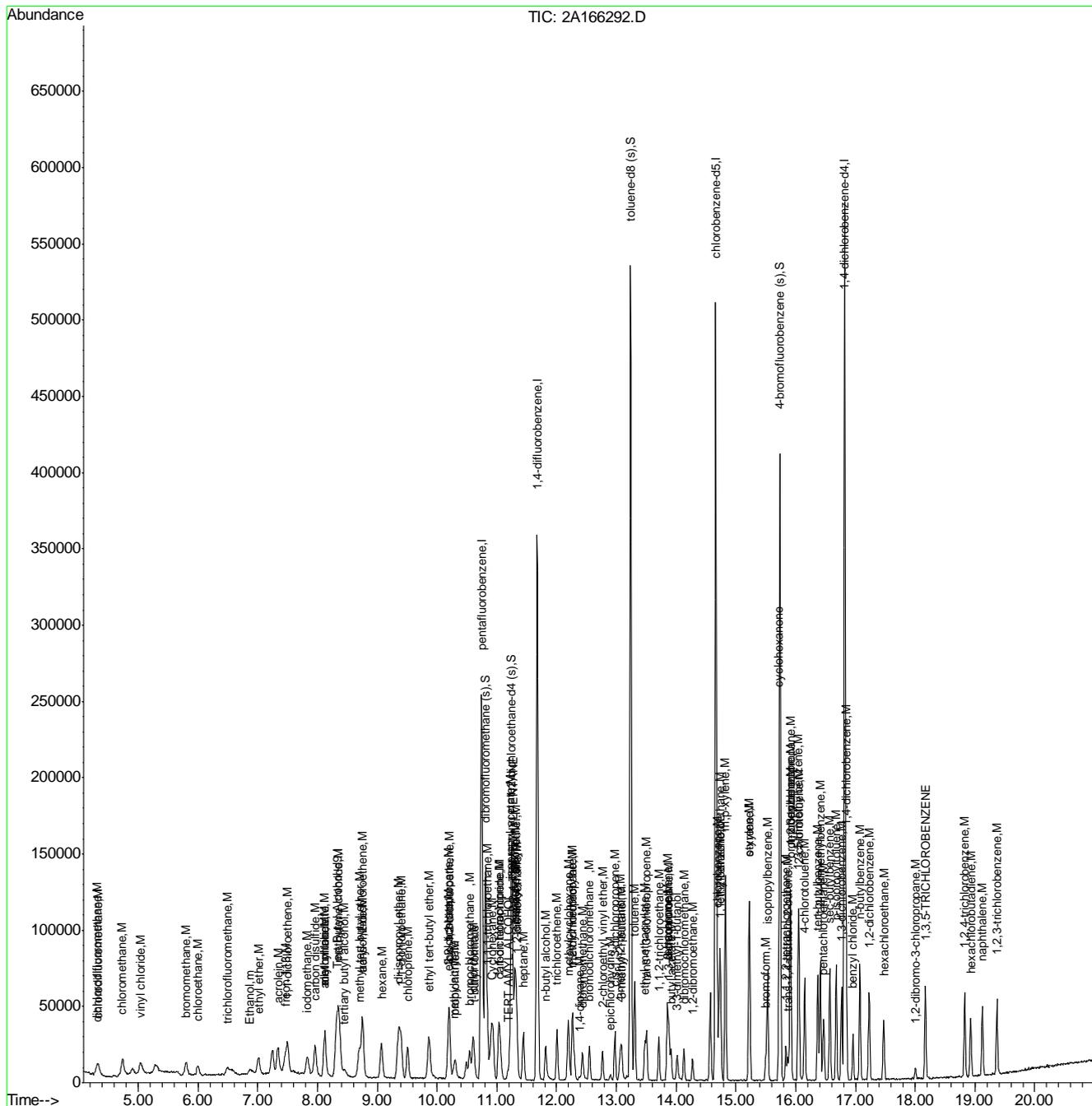
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,2,3-trichloropropane	15.91	110	3079	5.10	ug/L	93
106) n-propylbenzene	15.91	120	13279	4.95	ug/L	95
107) 2-chlorotoluene	16.06	126	12981	4.92	ug/L	96
108) 4-chlorotoluene	16.15	126	13231	4.96	ug/L	99
109) 1,3,5-trimethylbenzene	16.04	105	42874	4.92	ug/L	99
110) tert-butylbenzene	16.37	119	36614	4.89	ug/L	97
111) pentachloroethane	16.46	167	9070	4.95	ug/L	97
112) 1,2,4-trimethylbenzene	16.41	105	44644	5.03	ug/L	98
113) sec-butylbenzene	16.57	105	54289	4.83	ug/L	97
114) 1,3-dichlorobenzene	16.77	146	27029	4.95	ug/L	98
115) p-isopropyltoluene	16.68	119	46574	4.90	ug/L	99
116) 1,4-dichlorobenzene	16.85	146	27300	4.95	ug/L	97
117) 1,2-dichlorobenzene	17.23	146	26111	4.92	ug/L	97
118) benzyl chloride	16.96	91	22946	4.96	ug/L	98
119) n-butylbenzene	17.07	92	24857	4.92	ug/L	99
120) 1,2-dibromo-3-chloropropan	18.00	75	2174	4.98	ug/L	93
121) 1,3,5-TRICHLOROBENZENE	18.17	180	23166	4.80	ug/L	98
122) 1,2,4-trichlorobenzene	18.83	180	20940	4.71	ug/L	95
123) hexachlorobutadiene	18.93	225	10308	4.83	ug/L	88
124) naphthalene	19.12	128	40462	4.78	ug/L	97
125) 1,2,3-trichlorobenzene	19.37	180	18413	4.65	ug/L	99
126) hexachloroethane	17.47	201	8493	4.70	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166292.D
 Acq On : 10 Mar 2016 8:58 pm
 Operator : tracyk
 Sample : ic7071-5
 Misc : MS99332,V2A7071,5.0,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 14 16:41:10 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration



7.6.4
7

Manual Integration Approval Summary

Sample Number: V2A7071-IC7071 Method: SW846 8260C
Lab FileID: 2A166292.D Analyst approved: 03/14/16 16:46 Jessica Reitan-Chu
Injection Time: 03/10/16 20:58 Supervisor approved: 03/14/16 16:57 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
2-Chloroethyl vinyl ether	110-75-8		12.77	Missed peak

7.6.4.1

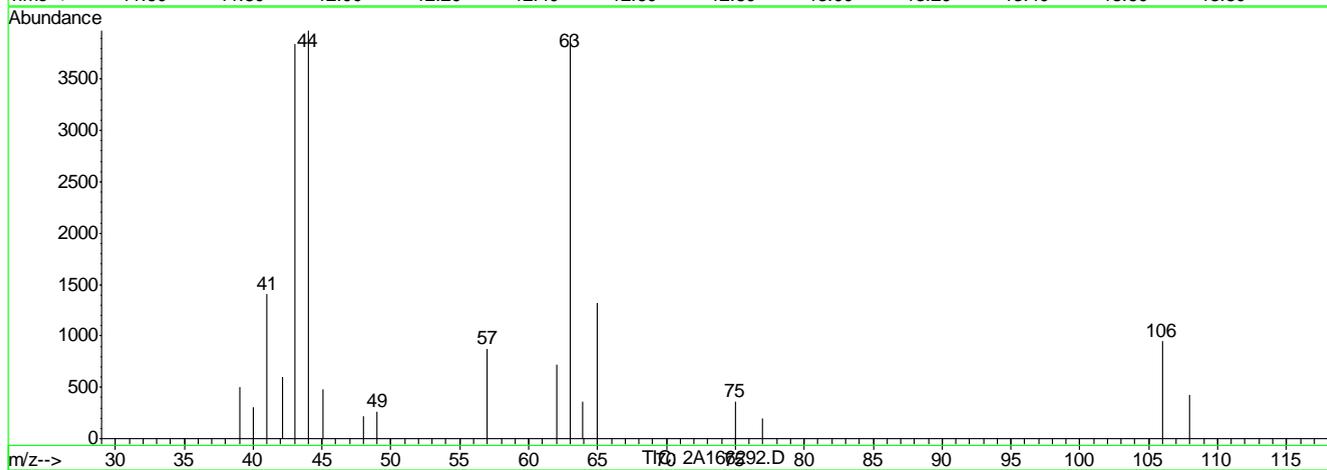
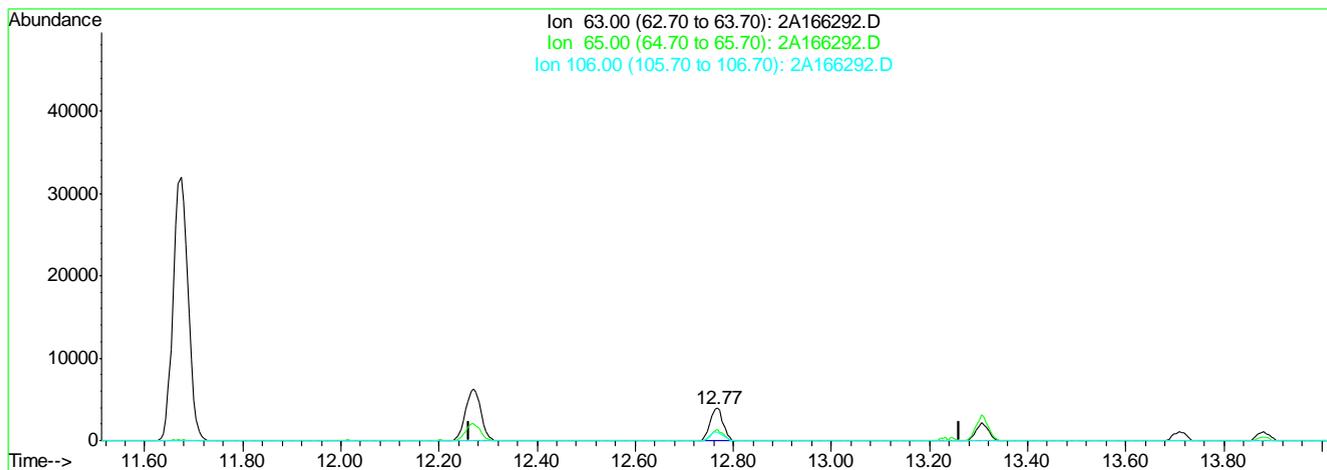
7

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\rawdata\2A166292.D Vial: 15
 Acq On : 10 Mar 2016 8:58 pm Operator: tracyk
 Sample : ic7071-5 Inst : Instrumen
 Misc : MS99332,V2A7071,5.0,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Quant Time: Mar 14 16:26:04 2016 Results File: M2A7071.RES

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Sat Mar 12 15:58:04 2016
 Response via : Multiple Level Calibration



(70) 2-chloroethyl vinyl ether (M)

12.77min 22.89ug/L

response 7174

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	33.55
106.00	24.10	24.13
0.00	0.00	0.00

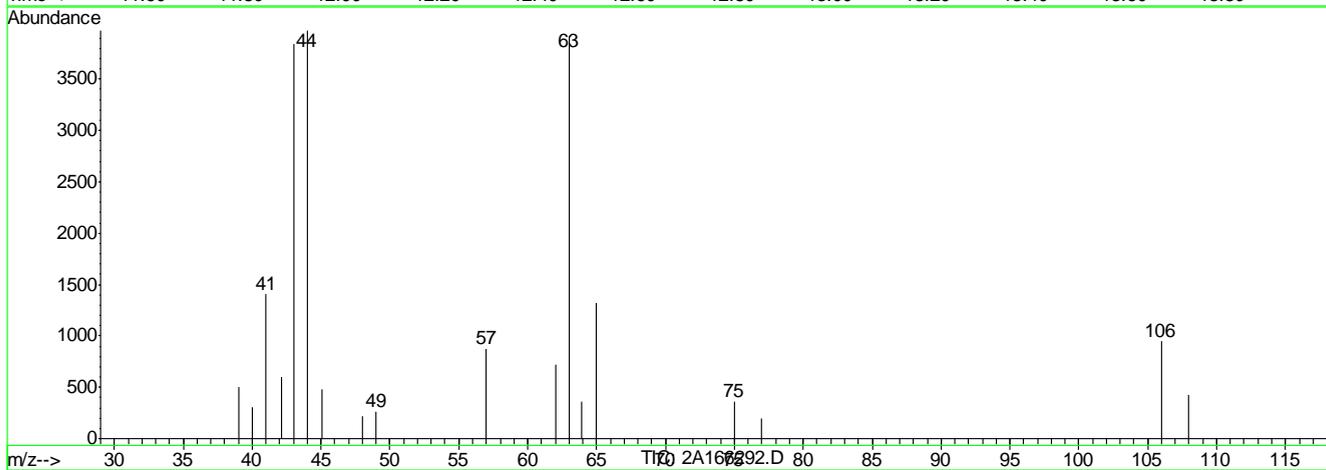
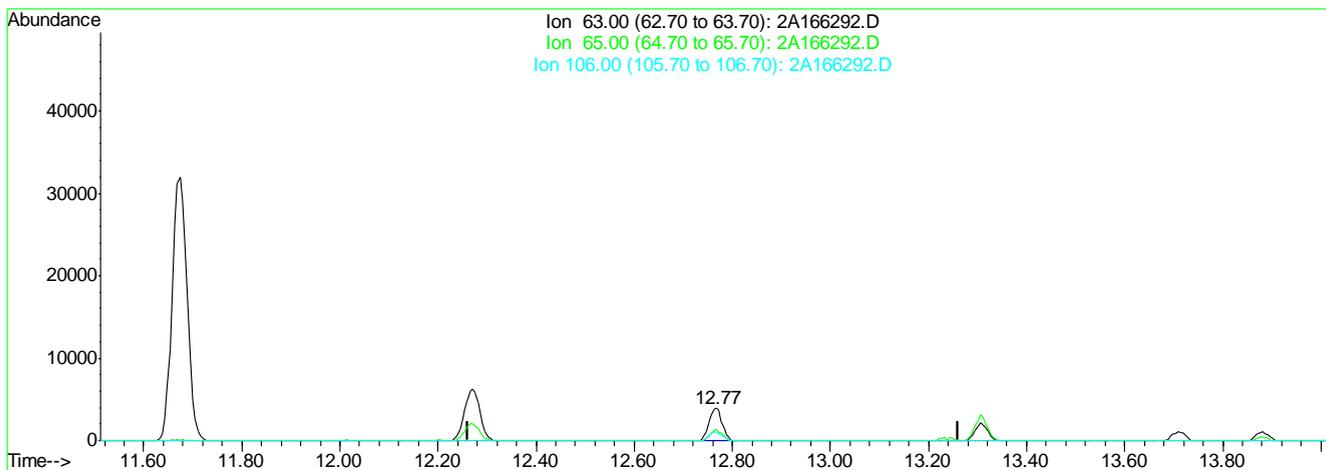
7.6.4.2
7

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\2A166292.D Vial: 15
 Acq On : 10 Mar 2016 8:58 pm Operator: tracyk
 Sample : ic7071-5 Inst : Instrumen
 Misc : MS99332,V2A7071,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Quant Time: Mar 14 16:33:31 2016 Results File: M2A7071.RES

Method : C:\MSDCHEM\1\METHODS\M2A7071.M (RTE Integrator)
 Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 Last Update : Mon Mar 14 16:37:00 2016
 Response via : Multiple Level Calibration



(70) 2-chloroethyl vinyl ether (M)

12.77min 22.98ug/L m

response 7173

Ion	Exp%	Act%
63.00	100	100
65.00	32.70	33.55
106.00	24.10	24.13
0.00	0.00	0.00

7.6.4.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166293.D
 Acq On : 10 Mar 2016 9:27 pm
 Operator : tracyk
 Sample : ic7071-10
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 12 16:34:43 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	93293	500.00	ug/L	0.00
5) pentafluorobenzene	10.75	168	231573	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	333689	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	283642	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	152261	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.81	113	100933	49.46	ug/L	0.00
Spiked Amount	50.000	Range 76 - 120	Recovery	=	98.92%	
47) 1,2-dichloroethane-d4 (s)	11.25	65	105270	49.66	ug/L	0.00
Spiked Amount	50.000	Range 73 - 122	Recovery	=	99.32%	
76) toluene-d8 (s)	13.24	98	365465	50.05	ug/L	0.00
Spiked Amount	50.000	Range 84 - 119	Recovery	=	100.10%	
100) 4-bromofluorobenzene (s)	15.73	95	133146	49.89	ug/L	0.00
Spiked Amount	50.000	Range 78 - 117	Recovery	=	99.78%	

Target Compounds

Qvalue

2) tertiary butyl alcohol	8.46	59	17355	52.18	ug/L	92
3) Ethanol	6.87	45	20126	1158.07	ug/L	99
4) 1,4-dioxane	12.38	88	4482	251.86	ug/L	97
7) chlorodifluoromethane	4.33	51	29618	10.13	ug/L	97
8) dichlorodifluoromethane	4.29	85	22251	9.42	ug/L	96
10) chloromethane	4.74	50	37647	9.92	ug/L	97
11) vinyl chloride	5.04	62	33998	9.84	ug/L	99
12) bromomethane	5.80	94	19636	10.01	ug/L	99
13) chloroethane	6.00	64	18235	9.76	ug/L	98
14) trichlorofluoromethane	6.50	101	30588	8.92	ug/L	98
16) ethyl ether	7.01	74	12835	9.67	ug/L	97
18) acrolein	7.33	56	55430	103.57	ug/L	98
19) 1,1-dichloroethene	7.50	61	33468	9.35	ug/L	99
20) acetone	7.59	43	7842	11.92	ug/L	89
21) allyl chloride	8.12	76	13772	9.33	ug/L #	85
22) acetonitrile	8.11	40	23537	121.69	ug/L #	78
23) iodomethane	7.82	142	40308	9.60	ug/L	98
24) iso-butyl alcohol	11.31	74	7548	96.58	ug/L	85
25) carbon disulfide	7.96	76	74805	9.52	ug/L	98
26) methylene chloride	8.35	84	25708	9.96	ug/L	98
27) methyl acetate	8.11	74	3562	9.62	ug/L #	77
28) methyl tert butyl ether	8.70	73	66144	10.03	ug/L	97
29) trans-1,2-dichloroethene	8.76	61	34291	9.67	ug/L	100
30) di-isopropyl ether	9.35	45	89974	10.03	ug/L	96
31) 2-butanone	10.18	72	2620	10.67	ug/L	99
32) 1,1-dichloroethane	9.40	63	44469	9.80	ug/L	97
33) chloroprene	9.51	53	35856	9.77	ug/L	99
34) acrylonitrile	8.75	53	41314	49.23	ug/L	99
35) vinyl acetate	9.39	86	3915	9.58	ug/L	79
36) ethyl tert-butyl ether	9.86	59	78167	9.97	ug/L	99
37) ethyl acetate	10.18	45	3291	10.40	ug/L	64
38) 2,2-dichloropropane	10.19	77	33428	9.91	ug/L	98
39) cis-1,2-dichloroethene	10.20	96	27376	9.77	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166293.D
 Acq On : 10 Mar 2016 9:27 pm
 Operator : tracyk
 Sample : ic7071-10
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 12 16:34:43 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) methylacrylate	10.27	85	3189	9.52	ug/L #	90
41) propionitrile	10.31	54	30968	100.01	ug/L	98
42) bromochloromethane	10.54	128	12705	9.54	ug/L	96
43) tetrahydrofuran	10.58	42	7760	10.46	ug/L	95
44) chloroform	10.60	85	27171	9.84	ug/L	97
45) t-butyl formate	10.62	59	13563	9.41	ug/L	92
48) freon 113	7.46	151	14970	9.25	ug/L	97
49) methacrylonitrile	10.49	41	14938	10.39	ug/L	96
50) 1,1,1-trichloroethane	10.84	97	33024	9.67	ug/L	99
51) Cyclohexane	10.91	84	31114	8.95	ug/L	99
53) epichlorohydrin	12.90	57	8409	50.81	ug/L	97
54) n-butyl alcohol	11.82	56	31237	517.54	ug/L	94
55) carbon tetrachloride	11.05	117	30948	9.71	ug/L	96
56) 1,1-dichloropropene	11.03	75	30546	9.45	ug/L	98
57) hexane	9.06	57	30079	9.27	ug/L	95
58) TERT AMYL ALCOHOL	11.19	73	6144	55.32	ug/L	93
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	77741	9.04	ug/L	97
60) benzene	11.30	78	94968	9.79	ug/L	98
61) tert-amyl methyl ether	11.32	87	15330	10.08	ug/L	97
62) heptane	11.44	57	16398	9.34	ug/L	94
63) isopropyl acetate	11.22	43	55001	9.47	ug/L	97
64) 1,2-dichloroethane	11.33	62	29185	9.94	ug/L	100
66) trichloroethene	12.00	95	23695	9.64	ug/L	97
68) methyl methacrylate	12.26	100	5184	9.55	ug/L #	90
69) 2-nitropropane	12.76	41	5041	10.17	ug/L	95
70) 2-chloroethyl vinyl ether	12.76	63	14214	46.23	ug/L	98
71) 1,2-dichloropropane	12.27	63	25622	9.80	ug/L	99
72) dibromomethane	12.43	93	14257	9.87	ug/L	96
73) methylcyclohexane	12.20	83	34835	9.34	ug/L	98
74) bromodichloromethane	12.55	83	31109	9.67	ug/L	99
75) cis-1,3-dichloropropene	12.98	75	39901	9.72	ug/L	98
77) 4-methyl-2-pentanone	13.06	58	7935	9.91	ug/L	92
78) toluene	13.31	92	54180	9.61	ug/L	96
79) 3-methyl-1-butanol	13.08	55	19484	217.71	ug/L	96
80) trans-1,3-dichloropropene	13.50	75	35241	9.88	ug/L	98
81) ethyl methacrylate	13.48	69	26218	9.71	ug/L	99
82) 1,1,2-trichloroethane	13.71	83	16955	9.85	ug/L	92
83) 2-hexanone	13.86	58	7181	10.33	ug/L	99
85) tetrachloroethene	13.85	164	19476	9.48	ug/L	96
86) 1,3-dichloropropane	13.88	76	32213	9.66	ug/L	98
87) butyl acetate	13.91	56	12666	10.19	ug/L	94
88) 3,3-dimethyl-1-butanol	14.02	57	20032	106.06	ug/L	98
89) dibromochloromethane	14.13	129	23607	9.48	ug/L	98
90) 1,2-dibromoethane	14.27	107	20486	9.90	ug/L	98
91) chlorobenzene	14.69	112	61847	9.82	ug/L	97
92) 1,1,1,2-tetrachloroethane	14.74	131	24143	9.94	ug/L	93
93) ethylbenzene	14.73	91	102853	9.77	ug/L	99
94) m,p-xylene	14.83	106	77896	19.42	ug/L	94
95) o-xylene	15.22	106	38866	9.72	ug/L	94
96) styrene	15.23	104	67024	9.68	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166293.D
 Acq On : 10 Mar 2016 9:27 pm
 Operator : tracyk
 Sample : ic7071-10
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 12 16:34:43 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

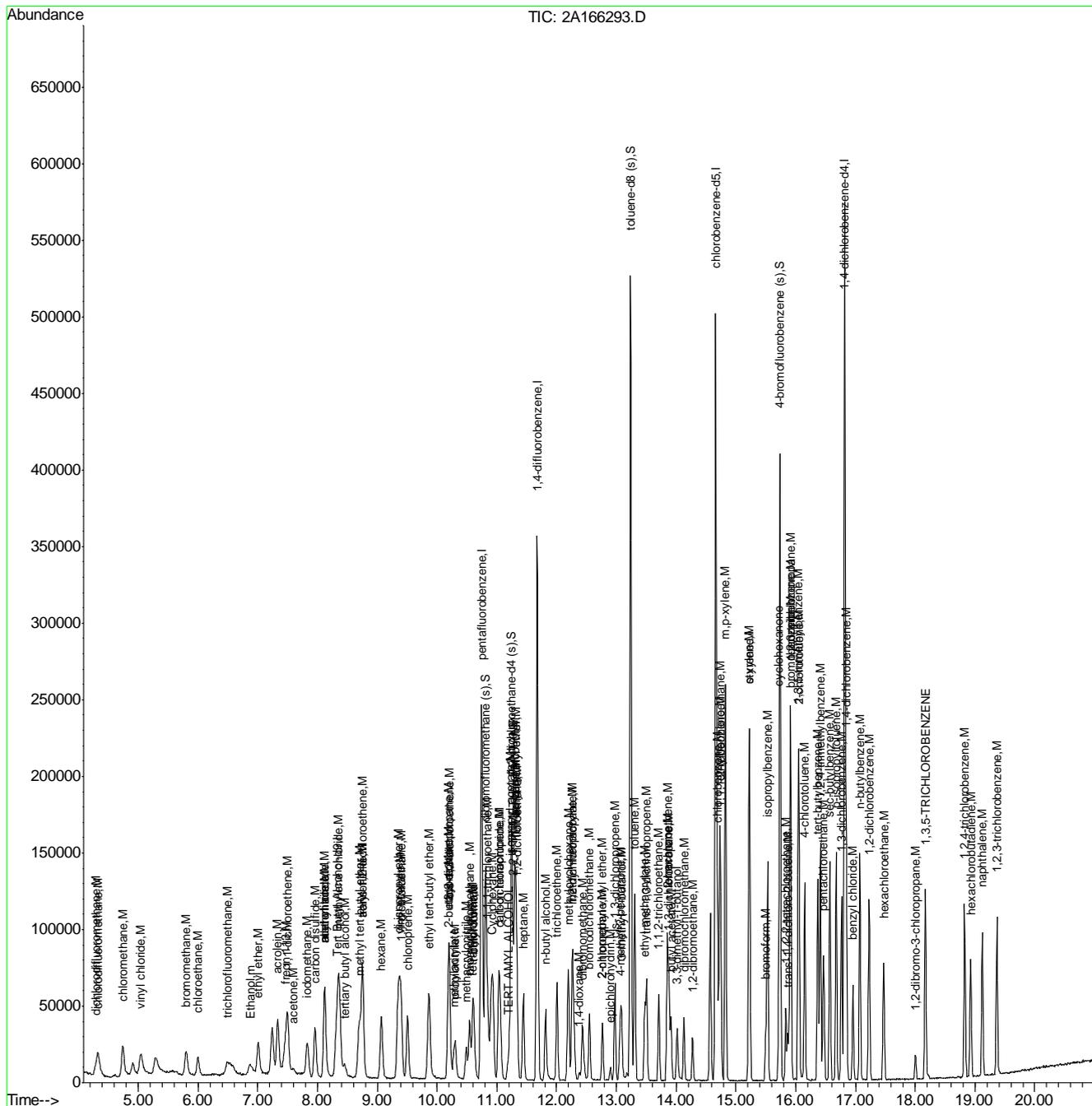
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) bromoform	15.50	173	16161	9.43	ug/L	99
99) isopropylbenzene	15.53	105	99225	9.52	ug/L	98
101) cyclohexanone	15.72	98	3328	109.65	ug/L	84
102) bromobenzene	15.92	156	28606	9.76	ug/L	96
103) 1,1,2,2-tetrachloroethane	15.83	83	25704	9.83	ug/L	100
104) trans-1,4-dichloro-2-buten	15.87	53	6281	9.52	ug/L	98
105) 1,2,3-trichloropropane	15.91	110	6195	10.19	ug/L	94
106) n-propylbenzene	15.91	120	25489	9.43	ug/L	92
107) 2-chlorotoluene	16.06	126	25353	9.54	ug/L	95
108) 4-chlorotoluene	16.15	126	25842	9.62	ug/L	95
109) 1,3,5-trimethylbenzene	16.05	105	83485	9.51	ug/L	99
110) tert-butylbenzene	16.37	119	71644	9.49	ug/L	98
111) pentachloroethane	16.47	167	17507	9.49	ug/L	96
112) 1,2,4-trimethylbenzene	16.41	105	87169	9.76	ug/L	99
113) sec-butylbenzene	16.57	105	107238	9.48	ug/L	99
114) 1,3-dichlorobenzene	16.77	146	53705	9.76	ug/L	99
115) p-isopropyltoluene	16.68	119	90497	9.46	ug/L	98
116) 1,4-dichlorobenzene	16.85	146	53974	9.72	ug/L	99
117) 1,2-dichlorobenzene	17.23	146	52314	9.80	ug/L	100
118) benzyl chloride	16.96	91	46763	10.04	ug/L	100
119) n-butylbenzene	17.07	92	48247	9.49	ug/L	98
120) 1,2-dibromo-3-chloropropan	18.00	75	4203	9.56	ug/L	100
121) 1,3,5-TRICHLOROBENZENE	18.17	180	46763	9.63	ug/L	100
122) 1,2,4-trichlorobenzene	18.83	180	41504	9.27	ug/L	99
123) hexachlorobutadiene	18.93	225	20407	9.50	ug/L	98
124) naphthalene	19.12	128	80832	9.48	ug/L	100
125) 1,2,3-trichlorobenzene	19.37	180	37627	9.43	ug/L	99
126) hexachloroethane	17.47	201	17338	9.53	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166293.D
 Acq On : 10 Mar 2016 9:27 pm
 Operator : tracyk
 Sample : ic7071-10
 Misc : MS99332,V2A7071,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 12 16:34:43 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration



7.6.5
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166294.D
 Acq On : 10 Mar 2016 9:56 pm
 Operator : tracyk
 Sample : ic7071-20
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 12 16:34:54 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	90144	500.00	ug/L	0.00
5) pentafluorobenzene	10.75	168	225217	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	328546	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	279173	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	149769	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.82	113	100354	50.57	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	101.14%
47) 1,2-dichloroethane-d4 (s)	11.25	65	104067	50.48	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	100.96%
76) toluene-d8 (s)	13.24	98	361212	50.24	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	100.48%
100) 4-bromofluorobenzene (s)	15.73	95	131311	50.02	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.04%

Target Compounds

Qvalue

2) tertiary butyl alcohol	8.45	59	34115	106.15	ug/L	96
3) Ethanol	6.87	45	37401	2227.26	ug/L	97
4) 1,4-dioxane	12.37	88	8589	499.50	ug/L	99
7) chlorodifluoromethane	4.34	51	58073	20.42	ug/L	98
8) dichlorodifluoromethane	4.30	85	46608	20.29	ug/L	98
10) chloromethane	4.75	50	75740	20.52	ug/L	98
11) vinyl chloride	5.05	62	68520	20.40	ug/L	99
12) bromomethane	5.82	94	39765	20.84	ug/L	98
13) chloroethane	6.00	64	36619	20.15	ug/L	97
14) trichlorofluoromethane	6.50	101	64339	19.29	ug/L	94
16) ethyl ether	7.01	74	25343	19.63	ug/L	97
18) acrolein	7.34	56	105404	202.50	ug/L	99
19) 1,1-dichloroethene	7.50	61	65917	18.93	ug/L	96
20) acetone	7.59	43	13828	21.61	ug/L	98
21) allyl chloride	8.13	76	28005	19.50	ug/L	95
22) acetonitrile	8.12	40	40422	214.89	ug/L #	86
23) iodomethane	7.83	142	81114	19.86	ug/L	98
24) iso-butyl alcohol	11.30	74	15084	198.44	ug/L	96
25) carbon disulfide	7.96	76	148667	19.46	ug/L	97
26) methylene chloride	8.35	84	50530	20.13	ug/L	94
27) methyl acetate	8.12	74	7112	19.74	ug/L	91
28) methyl tert butyl ether	8.70	73	131621	20.53	ug/L	99
29) trans-1,2-dichloroethene	8.76	61	67287	19.51	ug/L	96
30) di-isopropyl ether	9.36	45	175633	20.14	ug/L	100
31) 2-butanone	10.18	72	4912	20.57	ug/L	96
32) 1,1-dichloroethane	9.40	63	87146	19.75	ug/L	98
33) chloroprene	9.51	53	69737	19.54	ug/L	98
34) acrylonitrile	8.75	53	81801	100.22	ug/L	97
35) vinyl acetate	9.38	86	7663	19.28	ug/L	77
36) ethyl tert-butyl ether	9.86	59	153132	20.07	ug/L	98
37) ethyl acetate	10.19	45	6424	20.87	ug/L	83
38) 2,2-dichloropropane	10.19	77	65097	19.85	ug/L	97
39) cis-1,2-dichloroethene	10.20	96	54395	19.96	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166294.D
 Acq On : 10 Mar 2016 9:56 pm
 Operator : tracyk
 Sample : ic7071-20
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 12 16:34:54 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) methylacrylate	10.27	85	6146	18.87	ug/L #	88
41) propionitrile	10.30	54	60628	201.32	ug/L	90
42) bromochloromethane	10.54	128	25215	19.48	ug/L	95
43) tetrahydrofuran	10.58	42	14978	20.76	ug/L	98
44) chloroform	10.60	85	53735	20.00	ug/L	100
45) t-butyl formate	10.62	59	26806	19.12	ug/L	96
48) freon 113	7.47	151	30901	19.62	ug/L	99
49) methacrylonitrile	10.49	41	27796	19.89	ug/L	97
50) 1,1,1-trichloroethane	10.85	97	64951	19.55	ug/L	97
51) Cyclohexane	10.91	84	62993	18.63	ug/L	97
53) epichlorohydrin	12.90	57	15752	96.68	ug/L	99
54) n-butyl alcohol	11.82	56	61201	1029.86	ug/L	97
55) carbon tetrachloride	11.05	117	60401	19.24	ug/L	97
56) 1,1-dichloropropene	11.03	75	59889	18.82	ug/L	98
57) hexane	9.07	57	60780	19.02	ug/L	98
58) TERT AMYL ALCOHOL	11.19	73	11727	107.24	ug/L	97
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	163035	19.25	ug/L	99
60) benzene	11.30	78	187281	19.61	ug/L	99
61) tert-amyl methyl ether	11.32	87	30296	20.23	ug/L	98
62) heptane	11.44	57	32549	18.82	ug/L	96
63) isopropyl acetate	11.22	43	112913	19.75	ug/L	99
64) 1,2-dichloroethane	11.33	62	57650	19.93	ug/L	98
66) trichloroethene	12.00	95	46462	19.19	ug/L	98
68) methyl methacrylate	12.26	100	10331	19.32	ug/L	94
69) 2-nitropropane	12.77	41	9844	20.18	ug/L	96
70) 2-chloroethyl vinyl ether	12.76	63	28091	92.80	ug/L	97
71) 1,2-dichloropropane	12.27	63	50802	19.73	ug/L	98
72) dibromomethane	12.43	93	27932	19.63	ug/L	97
73) methylcyclohexane	12.20	83	71713	19.53	ug/L	98
74) bromodichloromethane	12.55	83	62715	19.80	ug/L	97
75) cis-1,3-dichloropropene	12.98	75	78675	19.46	ug/L	98
77) 4-methyl-2-pentanone	13.06	58	15646	19.84	ug/L	95
78) toluene	13.31	92	107024	19.28	ug/L	100
79) 3-methyl-1-butanol	13.08	55	36886	418.61	ug/L	98
80) trans-1,3-dichloropropene	13.50	75	68458	19.49	ug/L	100
81) ethyl methacrylate	13.48	69	52084	19.59	ug/L	97
82) 1,1,2-trichloroethane	13.71	83	33251	19.63	ug/L	97
83) 2-hexanone	13.86	58	13421	19.61	ug/L	92
85) tetrachloroethene	13.86	164	38533	19.05	ug/L	100
86) 1,3-dichloropropane	13.88	76	63679	19.41	ug/L	98
87) butyl acetate	13.91	56	24467	19.99	ug/L	92
88) 3,3-dimethyl-1-butanol	14.02	57	38703	208.19	ug/L	98
89) dibromochloromethane	14.13	129	47041	19.19	ug/L	99
90) 1,2-dibromoethane	14.27	107	40054	19.67	ug/L	97
91) chlorobenzene	14.69	112	120570	19.46	ug/L	98
92) 1,1,1,2-tetrachloroethane	14.74	131	47719	19.97	ug/L	96
93) ethylbenzene	14.73	91	199735	19.28	ug/L	99
94) m,p-xylene	14.83	106	151129	38.27	ug/L	99
95) o-xylene	15.22	106	75994	19.30	ug/L	99
96) styrene	15.23	104	131826	19.35	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166294.D
 Acq On : 10 Mar 2016 9:56 pm
 Operator : tracyk
 Sample : ic7071-20
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 12 16:34:54 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

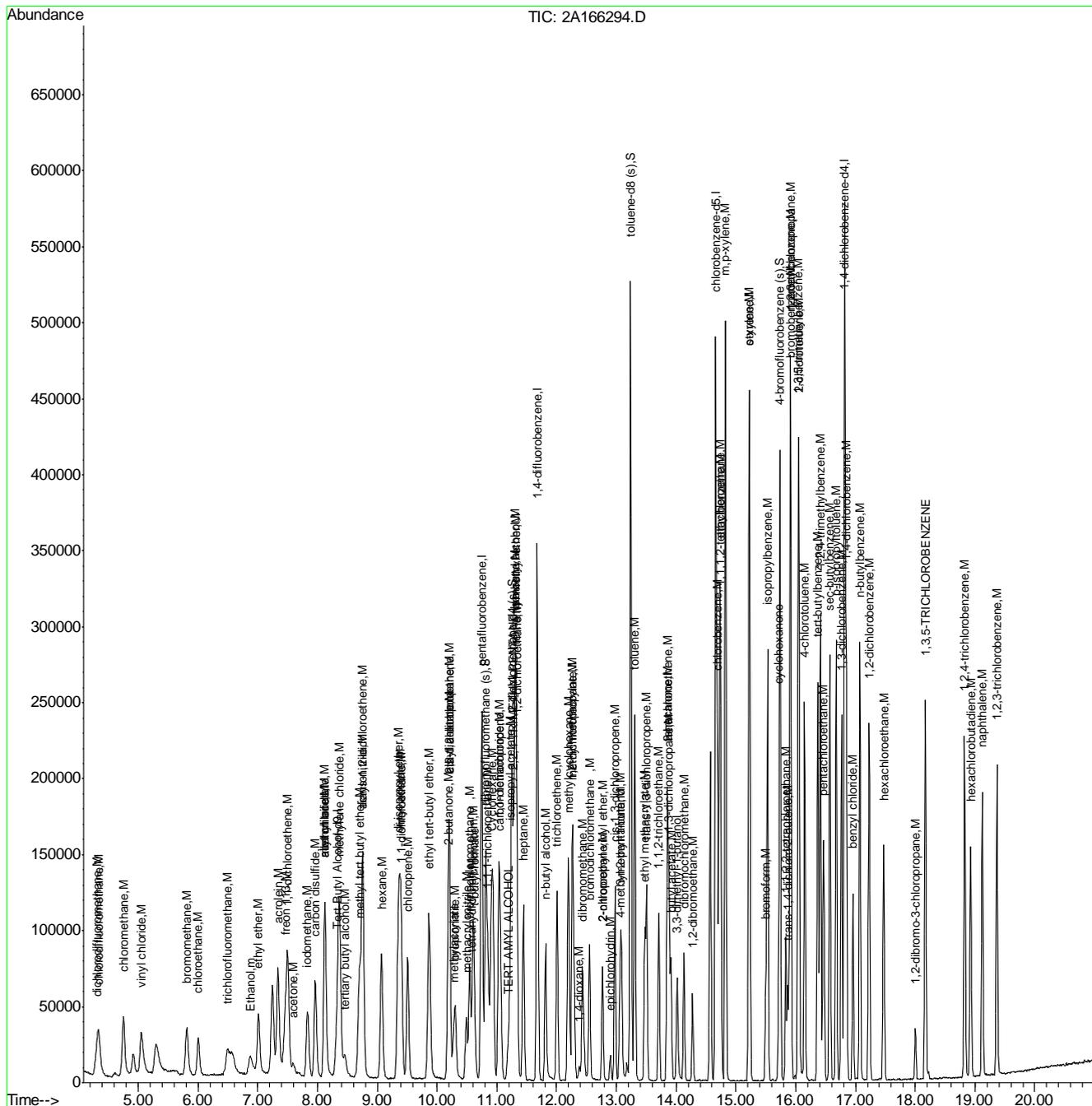
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) bromoform	15.50	173	32498	19.26	ug/L	98
99) isopropylbenzene	15.53	105	195538	19.07	ug/L	99
101) cyclohexanone	15.72	98	5735	192.10	ug/L	96
102) bromobenzene	15.92	156	55895	19.38	ug/L	97
103) 1,1,2,2-tetrachloroethane	15.83	83	50836	19.76	ug/L	99
104) trans-1,4-dichloro-2-buten	15.87	53	12539	19.32	ug/L	94
105) 1,2,3-trichloropropane	15.91	110	11850	19.82	ug/L	97
106) n-propylbenzene	15.91	120	50030	18.81	ug/L	98
107) 2-chlorotoluene	16.06	126	50658	19.38	ug/L	98
108) 4-chlorotoluene	16.15	126	50519	19.12	ug/L	98
109) 1,3,5-trimethylbenzene	16.04	105	166779	19.32	ug/L	98
110) tert-butylbenzene	16.37	119	140823	18.96	ug/L	100
111) pentachloroethane	16.46	167	34908	19.23	ug/L	95
112) 1,2,4-trimethylbenzene	16.41	105	171030	19.47	ug/L	99
113) sec-butylbenzene	16.57	105	210379	18.91	ug/L	100
114) 1,3-dichlorobenzene	16.77	146	106754	19.73	ug/L	96
115) p-isopropyltoluene	16.68	119	179945	19.12	ug/L	100
116) 1,4-dichlorobenzene	16.85	146	106361	19.48	ug/L	99
117) 1,2-dichlorobenzene	17.23	146	103473	19.70	ug/L	98
118) benzyl chloride	16.96	91	91885	20.05	ug/L	99
119) n-butylbenzene	17.07	92	95023	19.00	ug/L	98
120) 1,2-dibromo-3-chloropropan	18.00	75	8860	20.48	ug/L	89
121) 1,3,5-TRICHLOROBENZENE	18.17	180	93155	19.50	ug/L	100
122) 1,2,4-trichlorobenzene	18.83	180	84984	19.30	ug/L	98
123) hexachlorobutadiene	18.93	225	40288	19.07	ug/L	97
124) naphthalene	19.12	128	165031	19.68	ug/L	99
125) 1,2,3-trichlorobenzene	19.37	180	75473	19.24	ug/L	97
126) hexachloroethane	17.47	201	34014	19.01	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A166294.D
Acq On : 10 Mar 2016 9:56 pm
Operator : tracyk
Sample : ic7071-20
Misc : MS99332,V2A7071,5.0,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 12 16:34:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Sat Mar 12 14:51:45 2016
Response via : Initial Calibration



9.9.7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166295.D
 Acq On : 10 Mar 2016 10:26 pm
 Operator : tracyk
 Sample : icc7071-50
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 12 16:35:04 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	92036	500.00	ug/L	0.00
5) pentafluorobenzene	10.74	168	233088	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	340632	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	288041	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	152686	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.81	113	102699	50.00	ug/L	0.00
Spiked Amount	50.000	Range 76 - 120	Recovery	=	100.00%	
47) 1,2-dichloroethane-d4 (s)	11.25	65	106677	50.00	ug/L	0.00
Spiked Amount	50.000	Range 73 - 122	Recovery	=	100.00%	
76) toluene-d8 (s)	13.24	98	372678	50.00	ug/L	0.00
Spiked Amount	50.000	Range 84 - 119	Recovery	=	100.00%	
100) 4-bromofluorobenzene (s)	15.73	95	133817	50.00	ug/L	0.00
Spiked Amount	50.000	Range 78 - 117	Recovery	=	100.00%	

Target Compounds

Qvalue

2) tertiary butyl alcohol	8.46	59	82030	250.00	ug/L	100
3) Ethanol	6.87	45	85724	5000.00	ug/L	100
4) 1,4-dioxane	12.38	88	21945	1250.00	ug/L	100
7) chlorodifluoromethane	4.33	51	147150	50.00	ug/L	100
8) dichlorodifluoromethane	4.29	85	118859	50.00	ug/L	100
10) chloromethane	4.75	50	191016	50.00	ug/L	100
11) vinyl chloride	5.05	62	173827	50.00	ug/L	100
12) bromomethane	5.81	94	98762	50.00	ug/L	100
13) chloroethane	6.00	64	94032	50.00	ug/L	100
14) trichlorofluoromethane	6.49	101	172632	50.00	ug/L	100
16) ethyl ether	7.01	74	66815	50.00	ug/L	100
18) acrolein	7.33	56	269357	500.00	ug/L	100
19) 1,1-dichloroethene	7.50	61	180166	50.00	ug/L	100
20) acetone	7.59	43	33115	50.00	ug/L	100
21) allyl chloride	8.12	76	74301	50.00	ug/L	100
22) acetonitrile	8.12	40	97340	500.00	ug/L	100
23) iodomethane	7.82	142	211394	50.00	ug/L	100
24) iso-butyl alcohol	11.30	74	39334	500.00	ug/L	100
25) carbon disulfide	7.96	76	395349	50.00	ug/L	100
26) methylene chloride	8.35	84	129919	50.00	ug/L	100
27) methyl acetate	8.12	74	18641	50.00	ug/L	100
28) methyl tert butyl ether	8.70	73	331771	50.00	ug/L	100
29) trans-1,2-dichloroethene	8.76	61	178474	50.00	ug/L	100
30) di-isopropyl ether	9.35	45	451274	50.00	ug/L	100
31) 2-butanone	10.17	72	12359	50.00	ug/L	100
32) 1,1-dichloroethane	9.40	63	228282	50.00	ug/L	100
33) chloroprene	9.50	53	184702	50.00	ug/L	100
34) acrylonitrile	8.75	53	211193	250.00	ug/L	100
35) vinyl acetate	9.39	86	20563	50.00	ug/L	100
36) ethyl tert-butyl ether	9.86	59	394736	50.00	ug/L	100
37) ethyl acetate	10.19	45	15930	50.00	ug/L	100
38) 2,2-dichloropropane	10.19	77	169737	50.00	ug/L	100
39) cis-1,2-dichloroethene	10.20	96	141046	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166295.D
 Acq On : 10 Mar 2016 10:26 pm
 Operator : tracyk
 Sample : icc7071-50
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 12 16:35:04 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) methylacrylate	10.27	85	16856	50.00	ug/L	100
41) propionitrile	10.30	54	155836	500.00	ug/L	100
42) bromochloromethane	10.54	128	66989	50.00	ug/L	100
43) tetrahydrofuran	10.57	42	37331	50.00	ug/L	100
44) chloroform	10.60	85	139032	50.00	ug/L	100
45) t-butyl formate	10.62	59	72553	50.00	ug/L	100
48) freon 113	7.46	151	81487	50.00	ug/L	100
49) methacrylonitrile	10.49	41	72328	50.00	ug/L	100
50) 1,1,1-trichloroethane	10.85	97	171906	50.00	ug/L	100
51) Cyclohexane	10.91	84	174982	50.00	ug/L	100
53) epichlorohydrin	12.89	57	42232	250.00	ug/L	100
54) n-butyl alcohol	11.81	56	154032	2500.00	ug/L	100
55) carbon tetrachloride	11.05	117	162731	50.00	ug/L	100
56) 1,1-dichloropropene	11.03	75	164922	50.00	ug/L	100
57) hexane	9.06	57	165634	50.00	ug/L	100
58) TERT AMYL ALCOHOL	11.19	73	28343	250.00	ug/L	100
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	439005	50.00	ug/L	100
60) benzene	11.30	78	495024	50.00	ug/L	100
61) tert-amyl methyl ether	11.32	87	77615	50.00	ug/L	100
62) heptane	11.44	57	89653	50.00	ug/L	100
63) isopropyl acetate	11.22	43	296332	50.00	ug/L	100
64) 1,2-dichloroethane	11.33	62	149931	50.00	ug/L	100
66) trichloroethene	12.00	95	125511	50.00	ug/L	100
68) methyl methacrylate	12.26	100	27720	50.00	ug/L	100
69) 2-nitropropane	12.76	41	25291	50.00	ug/L	100
70) 2-chloroethyl vinyl ether	12.76	63	78462	250.00	ug/L	100
71) 1,2-dichloropropane	12.27	63	133474	50.00	ug/L	100
72) dibromomethane	12.43	93	73747	50.00	ug/L	100
73) methylcyclohexane	12.20	83	190389	50.00	ug/L	100
74) bromodichloromethane	12.55	83	164222	50.00	ug/L	100
75) cis-1,3-dichloropropene	12.98	75	209554	50.00	ug/L	100
77) 4-methyl-2-pentanone	13.05	58	40885	50.00	ug/L	100
78) toluene	13.31	92	287756	50.00	ug/L	100
79) 3-methyl-1-butanol	13.08	55	91356	1000.00	ug/L	100
80) trans-1,3-dichloropropene	13.50	75	182072	50.00	ug/L	100
81) ethyl methacrylate	13.47	69	137860	50.00	ug/L	100
82) 1,1,2-trichloroethane	13.71	83	87823	50.00	ug/L	100
83) 2-hexanone	13.86	58	35484	50.00	ug/L	100
85) tetrachloroethene	13.86	164	104335	50.00	ug/L	100
86) 1,3-dichloropropane	13.88	76	169274	50.00	ug/L	100
87) butyl acetate	13.91	56	63139	50.00	ug/L	100
88) 3,3-dimethyl-1-butanol	14.02	57	95904	500.00	ug/L	100
89) dibromochloromethane	14.13	129	126462	50.00	ug/L	100
90) 1,2-dibromoethane	14.27	107	105075	50.00	ug/L	100
91) chlorobenzene	14.69	112	319683	50.00	ug/L	100
92) 1,1,1,2-tetrachloroethane	14.74	131	123286	50.00	ug/L	100
93) ethylbenzene	14.73	91	534562	50.00	ug/L	100
94) m,p-xylene	14.83	106	407422	100.00	ug/L	100
95) o-xylene	15.22	106	203083	50.00	ug/L	100
96) styrene	15.23	104	351388	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166295.D
 Acq On : 10 Mar 2016 10:26 pm
 Operator : tracyk
 Sample : icc7071-50
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 12 16:35:04 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

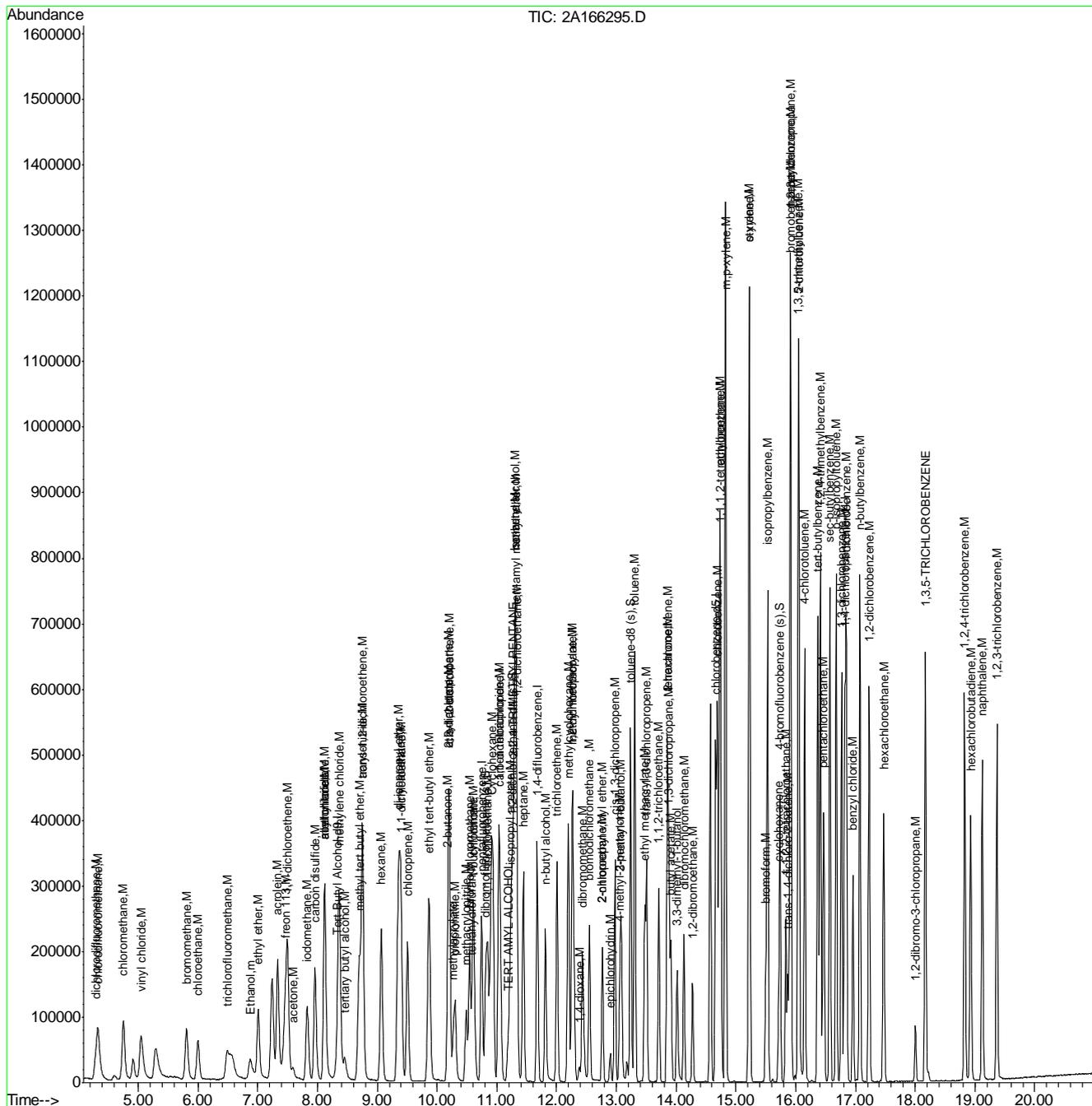
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) bromoform	15.50	173	87029	50.00	ug/L	100
99) isopropylbenzene	15.53	105	522722	50.00	ug/L	100
101) cyclohexanone	15.72	98	15218	500.00	ug/L	100
102) bromobenzene	15.92	156	146990	50.00	ug/L	100
103) 1,1,2,2-tetrachloroethane	15.83	83	131146	50.00	ug/L	100
104) trans-1,4-dichloro-2-buten	15.87	53	33087	50.00	ug/L	100
105) 1,2,3-trichloropropane	15.91	110	30473	50.00	ug/L	100
106) n-propylbenzene	15.91	120	135578	50.00	ug/L	100
107) 2-chlorotoluene	16.06	126	133242	50.00	ug/L	100
108) 4-chlorotoluene	16.15	126	134707	50.00	ug/L	100
109) 1,3,5-trimethylbenzene	16.04	105	439984	50.00	ug/L	100
110) tert-butylbenzene	16.37	119	378519	50.00	ug/L	100
111) pentachloroethane	16.47	167	92530	50.00	ug/L	100
112) 1,2,4-trimethylbenzene	16.41	105	447856	50.00	ug/L	100
113) sec-butylbenzene	16.57	105	567156	50.00	ug/L	100
114) 1,3-dichlorobenzene	16.77	146	275768	50.00	ug/L	100
115) p-isopropyltoluene	16.68	119	479743	50.00	ug/L	100
116) 1,4-dichlorobenzene	16.85	146	278312	50.00	ug/L	100
117) 1,2-dichlorobenzene	17.23	146	267754	50.00	ug/L	100
118) benzyl chloride	16.96	91	233603	50.00	ug/L	100
119) n-butylbenzene	17.08	92	254990	50.00	ug/L	100
120) 1,2-dibromo-3-chloropropan	18.00	75	22049	50.00	ug/L	100
121) 1,3,5-TRICHLOROBENZENE	18.17	180	243526	50.00	ug/L	100
122) 1,2,4-trichlorobenzene	18.83	180	224446	50.00	ug/L	100
123) hexachlorobutadiene	18.93	225	107702	50.00	ug/L	100
124) naphthalene	19.12	128	427412	50.00	ug/L	100
125) 1,2,3-trichlorobenzene	19.37	180	199969	50.00	ug/L	100
126) hexachloroethane	17.47	201	91206	50.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A166295.D
Acq On : 10 Mar 2016 10:26 pm
Operator : tracyk
Sample : icc7071-50
Misc : MS99332,V2A7071,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 12 16:35:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Sat Mar 12 14:51:45 2016
Response via : Initial Calibration



7.6.7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166296.D
 Acq On : 10 Mar 2016 10:55 pm
 Operator : tracyk
 Sample : ic7071-100
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 12 16:35:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	90684	500.00	ug/L	0.00
5) pentafluorobenzene	10.74	168	239912	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	352340	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	297704	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	156360	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.81	113	106673	50.46	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	100.92%
47) 1,2-dichloroethane-d4 (s)	11.25	65	109962	50.07	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	100.14%
76) toluene-d8 (s)	13.24	98	384665	49.89	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.78%
100) 4-bromofluorobenzene (s)	15.73	95	139027	50.73	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	101.46%

Target Compounds

Qvalue

2) tertiary butyl alcohol	8.46	59	151654	469.08	ug/L	98
3) Ethanol	6.88	45	152134	9005.77	ug/L	99
4) 1,4-dioxane	12.38	88	46145	2667.63	ug/L	98
7) chlorodifluoromethane	4.33	51	297685	98.27	ug/L	99
8) dichlorodifluoromethane	4.29	85	238349	97.41	ug/L	99
10) chloromethane	4.75	50	384599	97.81	ug/L	97
11) vinyl chloride	5.04	62	355428	99.33	ug/L	99
12) bromomethane	5.80	94	195306	96.06	ug/L	100
13) chloroethane	5.99	64	195820	101.16	ug/L	99
14) trichlorofluoromethane	6.48	101	352713	99.25	ug/L	99
16) ethyl ether	7.01	74	135338	98.40	ug/L	97
18) acrolein	7.33	56	551791	995.14	ug/L	99
19) 1,1-dichloroethene	7.50	61	369121	99.53	ug/L	98
20) acetone	7.59	43	63473	93.11	ug/L	97
21) allyl chloride	8.12	76	156149	102.09	ug/L	92
22) acetonitrile	8.12	40	193700	966.67	ug/L	92
23) iodomethane	7.82	142	439637	101.03	ug/L	99
24) iso-butyl alcohol	11.30	74	79893	986.69	ug/L	98
25) carbon disulfide	7.96	76	816622	100.34	ug/L	99
26) methylene chloride	8.35	84	269072	100.61	ug/L	98
27) methyl acetate	8.12	74	38057	99.18	ug/L	98
28) methyl tert butyl ether	8.70	73	685233	100.33	ug/L	98
29) trans-1,2-dichloroethene	8.76	61	364516	99.22	ug/L	99
30) di-isopropyl ether	9.35	45	921101	99.15	ug/L	99
31) 2-butanone	10.17	72	24875	97.77	ug/L	99
32) 1,1-dichloroethane	9.40	63	464881	98.93	ug/L	99
33) chloroprene	9.50	53	376868	99.12	ug/L	99
34) acrylonitrile	8.75	53	423976	487.61	ug/L	99
35) vinyl acetate	9.38	86	43220	102.10	ug/L	83
36) ethyl tert-butyl ether	9.86	59	810549	99.75	ug/L	99
37) ethyl acetate	10.18	45	31506	96.08	ug/L	72
38) 2,2-dichloropropane	10.19	77	338629	96.91	ug/L	100
39) cis-1,2-dichloroethene	10.20	96	287634	99.06	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166296.D
 Acq On : 10 Mar 2016 10:55 pm
 Operator : tracyk
 Sample : ic7071-100
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 12 16:35:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) methylacrylate	10.27	85	33436	96.36	ug/L #	86
41) propionitrile	10.30	54	310908	969.17	ug/L	98
42) bromochloromethane	10.54	128	137737	99.88	ug/L	98
43) tetrahydrofuran	10.57	42	75577	98.35	ug/L	97
44) chloroform	10.60	85	284840	99.52	ug/L	99
45) t-butyl formate	10.62	59	160322	107.34	ug/L	97
48) freon 113	7.46	151	161621	96.35	ug/L	98
49) methacrylonitrile	10.49	41	143686	96.50	ug/L	99
50) 1,1,1-trichloroethane	10.85	97	354760	100.25	ug/L	100
51) Cyclohexane	10.91	84	354808	98.50	ug/L	99
53) epichlorohydrin	12.89	57	84330	482.62	ug/L	96
54) n-butyl alcohol	11.81	56	285794	4484.41	ug/L	99
55) carbon tetrachloride	11.05	117	333117	98.95	ug/L	97
56) 1,1-dichloropropene	11.03	75	334230	97.96	ug/L	99
57) hexane	9.06	57	325388	94.96	ug/L	100
58) TERT AMYL ALCOHOL	11.19	73	52955	451.57	ug/L	97
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	860369	94.73	ug/L	100
60) benzene	11.30	78	1009328	98.56	ug/L	100
61) tert-amyl methyl ether	11.32	87	159377	99.26	ug/L	94
62) heptane	11.44	57	173593	93.60	ug/L	97
63) isopropyl acetate	11.22	43	594234	96.93	ug/L	99
64) 1,2-dichloroethane	11.33	62	303708	97.92	ug/L	100
66) trichloroethene	12.00	95	257664	99.24	ug/L	98
68) methyl methacrylate	12.26	100	56520	98.56	ug/L	95
69) 2-nitropropane	12.76	41	49925	95.42	ug/L	97
70) 2-chloroethyl vinyl ether	12.76	63	167592	516.25	ug/L	99
71) 1,2-dichloropropane	12.27	63	273459	99.04	ug/L	98
72) dibromomethane	12.43	93	150192	98.45	ug/L	97
73) methylcyclohexane	12.20	83	389603	98.92	ug/L	99
74) bromodichloromethane	12.55	83	337949	99.47	ug/L	99
75) cis-1,3-dichloropropene	12.98	75	428654	98.88	ug/L	99
77) 4-methyl-2-pentanone	13.06	58	80532	95.21	ug/L	91
78) toluene	13.31	92	587765	98.74	ug/L	99
79) 3-methyl-1-butanol	13.08	55	168054	1778.42	ug/L	99
80) trans-1,3-dichloropropene	13.50	75	371864	98.73	ug/L	99
81) ethyl methacrylate	13.47	69	281964	98.87	ug/L	99
82) 1,1,2-trichloroethane	13.71	83	179197	98.63	ug/L	96
83) 2-hexanone	13.86	58	70228	95.67	ug/L	99
85) tetrachloroethene	13.86	164	214996	99.69	ug/L	98
86) 1,3-dichloropropane	13.88	76	344220	98.38	ug/L	99
87) butyl acetate	13.91	56	128019	98.09	ug/L	98
88) 3,3-dimethyl-1-butanol	14.02	57	171873	866.98	ug/L	98
89) dibromochloromethane	14.13	129	260990	99.84	ug/L	98
90) 1,2-dibromoethane	14.27	107	215660	99.29	ug/L	99
91) chlorobenzene	14.69	112	658019	99.58	ug/L	98
92) 1,1,1,2-tetrachloroethane	14.74	131	255165	100.13	ug/L	98
93) ethylbenzene	14.73	91	1091242	98.76	ug/L	99
94) m,p-xylene	14.83	106	838539	199.14	ug/L	97
95) o-xylene	15.22	106	420072	100.07	ug/L	98
96) styrene	15.23	104	716999	98.71	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166296.D
 Acq On : 10 Mar 2016 10:55 pm
 Operator : tracyk
 Sample : ic7071-100
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 12 16:35:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

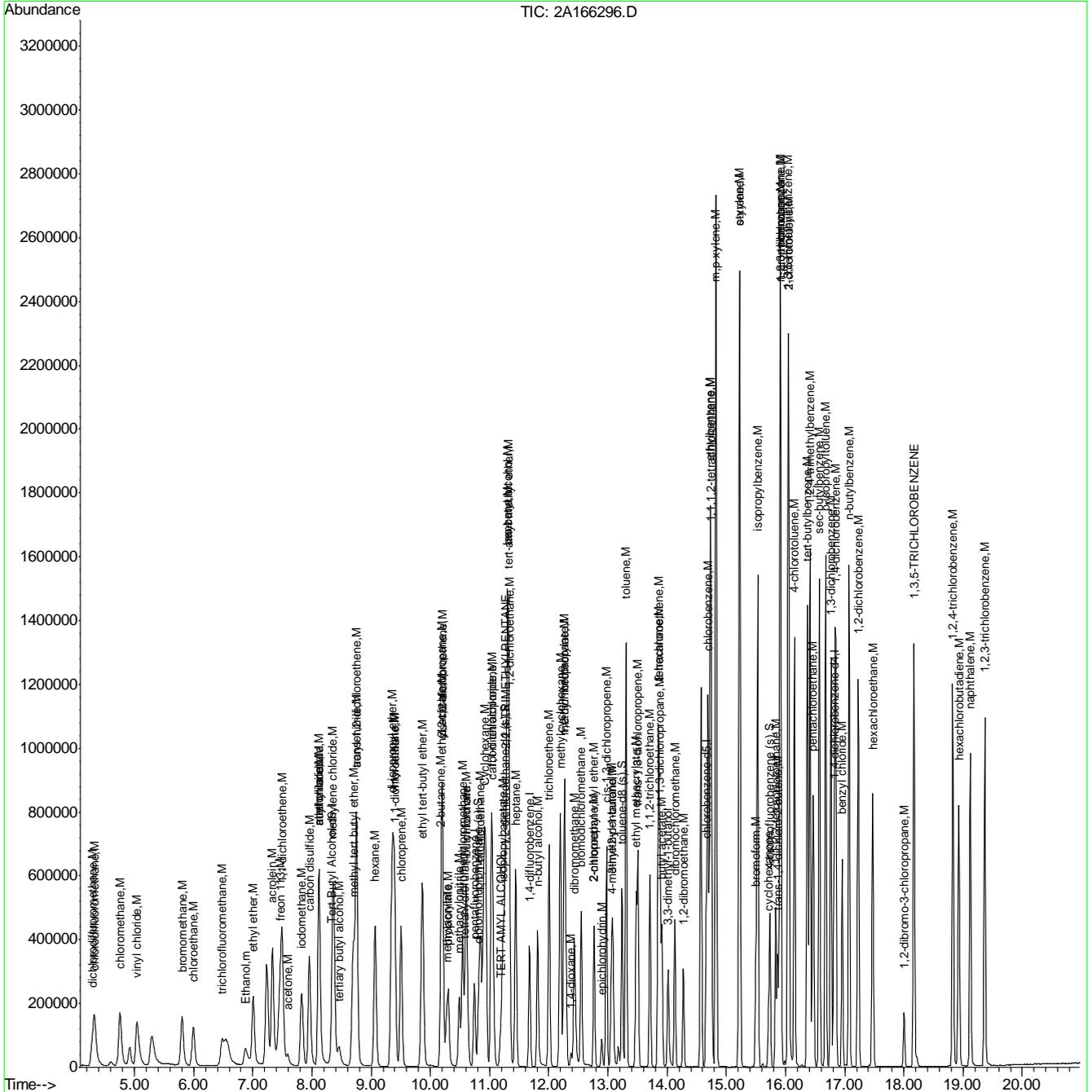
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) bromoform	15.50	173	181214	100.73	ug/L	98
99) isopropylbenzene	15.53	105	1077765	100.67	ug/L	99
101) cyclohexanone	15.72	98	28418	911.76	ug/L	96
102) bromobenzene	15.92	156	298711	99.22	ug/L	99
103) 1,1,2,2-tetrachloroethane	15.83	83	269012	100.15	ug/L	99
104) trans-1,4-dichloro-2-buten	15.87	53	68603	101.23	ug/L	97
105) 1,2,3-trichloropropane	15.91	110	63018	100.97	ug/L	95
106) n-propylbenzene	15.91	120	281041	101.21	ug/L	99
107) 2-chlorotoluene	16.06	126	272927	100.01	ug/L	99
108) 4-chlorotoluene	16.15	126	276269	100.13	ug/L	99
109) 1,3,5-trimethylbenzene	16.04	105	912243	101.23	ug/L	100
110) tert-butylbenzene	16.37	119	782339	100.91	ug/L	100
111) pentachloroethane	16.47	167	190245	100.39	ug/L	99
112) 1,2,4-trimethylbenzene	16.41	105	920154	100.31	ug/L	99
113) sec-butylbenzene	16.57	105	1171407	100.84	ug/L	99
114) 1,3-dichlorobenzene	16.77	146	563760	99.81	ug/L	99
115) p-isopropyltoluene	16.68	119	992280	100.99	ug/L	99
116) 1,4-dichlorobenzene	16.85	146	567006	99.47	ug/L	99
117) 1,2-dichlorobenzene	17.23	146	544909	99.36	ug/L	99
118) benzyl chloride	16.96	91	474465	99.17	ug/L	100
119) n-butylbenzene	17.07	92	523679	100.27	ug/L	99
120) 1,2-dibromo-3-chloropropan	18.00	75	45664	101.12	ug/L	94
121) 1,3,5-TRICHLOROBENZENE	18.17	180	501566	100.56	ug/L	99
122) 1,2,4-trichlorobenzene	18.82	180	464245	100.99	ug/L	99
123) hexachlorobutadiene	18.93	225	219786	99.64	ug/L	98
124) naphthalene	19.12	128	861798	98.45	ug/L	100
125) 1,2,3-trichlorobenzene	19.37	180	411495	100.47	ug/L	99
126) hexachloroethane	17.47	201	191485	102.51	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A166296.D
Acq On : 10 Mar 2016 10:55 pm
Operator : tracyk
Sample : ic7071-100
Misc : MS99332,V2A7071,5.0,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 12 16:35:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Sat Mar 12 14:51:45 2016
Response via : Initial Calibration



8.9.7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166297.D
 Acq On : 10 Mar 2016 11:24 pm
 Operator : tracyk
 Sample : ic7071-200
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 12 16:35:24 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	101231	500.00	ug/L	0.00
5) pentafluorobenzene	10.75	168	250308	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	369439	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	313433	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	165091	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.82	113	110649	50.16	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	100.32%
47) 1,2-dichloroethane-d4 (s)	11.25	65	115699	50.50	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	101.00%
76) toluene-d8 (s)	13.24	98	401764	49.70	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.40%
100) 4-bromofluorobenzene (s)	15.73	95	145017	50.11	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.22%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.47	59	284134	787.29	ug/L	99
3) Ethanol	6.89	45	295237	15656.06	ug/L	99
4) 1,4-dioxane	12.38	88	96449	4994.78	ug/L	95
7) chlorodifluoromethane	4.33	51	608936	192.68	ug/L	98
8) dichlorodifluoromethane	4.30	85	479693	187.91	ug/L	99
10) chloromethane	4.77	50	790017	192.57	ug/L	99
11) vinyl chloride	5.05	62	724677	194.11	ug/L	98
12) bromomethane	5.80	94	392388	184.99	ug/L	99
13) chloroethane	5.99	64	390075	193.15	ug/L	99
14) trichlorofluoromethane	6.54	101	713605	192.47	ug/L	99
16) ethyl ether	7.01	74	282704	197.00	ug/L	98
18) acrolein	7.34	56	1092648	1888.72	ug/L	100
19) 1,1-dichloroethene	7.50	61	746924	193.03	ug/L	97
20) acetone	7.59	43	142771	200.74	ug/L	99
21) allyl chloride	8.12	76	324772	203.52	ug/L	91
22) acetonitrile	8.12	40	394583	1887.39	ug/L #	86
23) iodomethane	7.83	142	902802	198.85	ug/L	100
24) iso-butyl alcohol	11.31	74	164276	1944.56	ug/L #	55
25) carbon disulfide	7.96	76	1664962	196.08	ug/L	100
26) methylene chloride	8.35	84	555511	199.08	ug/L	99
27) methyl acetate	8.12	74	76790	191.80	ug/L	99
28) methyl tert butyl ether	8.70	73	1418063	199.01	ug/L	99
29) trans-1,2-dichloroethene	8.76	61	746340	194.70	ug/L	100
30) di-isopropyl ether	9.36	45	1865411	192.46	ug/L	95
31) 2-butanone	10.18	72	51785	195.09	ug/L #	85
32) 1,1-dichloroethane	9.40	63	956821	195.15	ug/L	100
33) chloroprene	9.50	53	762335	192.17	ug/L	99
34) acrylonitrile	8.75	53	868720	957.60	ug/L	99
35) vinyl acetate	9.39	86	90391	204.67	ug/L	89
36) ethyl tert-butyl ether	9.86	59	1654653	195.17	ug/L	100
37) ethyl acetate	10.19	45	65127	190.35	ug/L	95
38) 2,2-dichloropropane	10.19	77	681379	186.91	ug/L	99
39) cis-1,2-dichloroethene	10.20	96	596283	196.84	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166297.D
 Acq On : 10 Mar 2016 11:24 pm
 Operator : tracyk
 Sample : ic7071-200
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 12 16:35:24 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) methylacrylate	10.27	85	70956	196.00	ug/L	95
41) propionitrile	10.30	54	650135	1942.45	ug/L	98
42) bromochloromethane	10.54	128	285023	198.10	ug/L	96
43) tetrahydrofuran	10.58	42	153802	191.83	ug/L	96
44) chloroform	10.60	85	585562	196.10	ug/L	99
45) t-butyl formate	10.62	59	355003	227.82	ug/L	95
48) freon 113	7.46	151	330202	188.67	ug/L	98
49) methacrylonitrile	10.49	41	300634	193.53	ug/L	100
50) 1,1,1-trichloroethane	10.85	97	726504	196.77	ug/L	99
51) Cyclohexane	10.91	84	717992	191.05	ug/L	99
53) epichlorohydrin	12.90	57	177700	969.90	ug/L	97
54) n-butyl alcohol	11.82	56	594252	8892.88	ug/L	98
55) carbon tetrachloride	11.05	117	682001	193.21	ug/L	97
56) 1,1-dichloropropene	11.03	75	696310	194.64	ug/L	99
57) hexane	9.06	57	630034	175.36	ug/L	100
58) TERT AMYL ALCOHOL	11.19	73	104869	852.87	ug/L	94
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	1644743	172.72	ug/L	100
60) benzene	11.30	78	2090887	194.72	ug/L	100
61) tert-amyl methyl ether	11.32	87	326923	194.18	ug/L	96
62) heptane	11.44	57	338835	174.24	ug/L	97
63) isopropyl acetate	11.22	43	1177480	183.18	ug/L	100
64) 1,2-dichloroethane	11.33	62	630184	193.77	ug/L	100
66) trichloroethene	12.00	95	536331	197.00	ug/L	98
68) methyl methacrylate	12.26	100	119265	198.35	ug/L #	93
69) 2-nitropropane	12.76	41	107080	195.19	ug/L	96
70) 2-chloroethyl vinyl ether	12.77	63	386346	1135.01	ug/L	98
71) 1,2-dichloropropane	12.27	63	570498	197.05	ug/L	98
72) dibromomethane	12.43	93	315529	197.25	ug/L	97
73) methylcyclohexane	12.20	83	774654	187.58	ug/L	99
74) bromodichloromethane	12.55	83	710536	199.47	ug/L	100
75) cis-1,3-dichloropropene	12.98	75	899997	198.00	ug/L	99
77) 4-methyl-2-pentanone	13.06	58	165892	187.06	ug/L	90
78) toluene	13.31	92	1230302	197.11	ug/L	98
79) 3-methyl-1-butanol	13.08	55	336028	3391.42	ug/L	98
80) trans-1,3-dichloropropene	13.50	75	772821	195.68	ug/L	100
81) ethyl methacrylate	13.48	69	589514	197.14	ug/L	97
82) 1,1,2-trichloroethane	13.71	83	377504	198.16	ug/L	97
83) 2-hexanone	13.86	58	146772	190.69	ug/L	98
85) tetrachloroethene	13.86	164	445380	196.15	ug/L	98
86) 1,3-dichloropropane	13.88	76	721032	195.72	ug/L	99
87) butyl acetate	13.91	56	262564	191.08	ug/L	94
88) 3,3-dimethyl-1-butanol	14.02	57	346722	1661.21	ug/L	98
89) dibromochloromethane	14.13	129	549193	199.55	ug/L	98
90) 1,2-dibromoethane	14.27	107	449510	196.57	ug/L	98
91) chlorobenzene	14.69	112	1379388	198.27	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.75	131	537110	200.18	ug/L	98
93) ethylbenzene	14.73	91	2262615	194.49	ug/L	99
94) m,p-xylene	14.83	106	1762444	397.54	ug/L	96
95) o-xylene	15.22	106	880978	199.33	ug/L	99
96) styrene	15.23	104	1493365	195.28	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166297.D
 Acq On : 10 Mar 2016 11:24 pm
 Operator : tracyk
 Sample : ic7071-200
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 12 16:35:24 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 14:51:45 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) bromoform	15.50	173	378236	199.70	ug/L	99
99) isopropylbenzene	15.53	105	2253427	199.35	ug/L	100
101) cyclohexanone	15.72	98	54164	1645.88	ug/L	99
102) bromobenzene	15.92	156	614828	193.42	ug/L	98
103) 1,1,2,2-tetrachloroethane	15.84	83	557965	196.74	ug/L	99
104) trans-1,4-dichloro-2-buten	15.87	53	140522	196.40	ug/L	99
105) 1,2,3-trichloropropane	15.91	110	129136	195.96	ug/L	96
106) n-propylbenzene	15.91	120	586644	200.09	ug/L	99
107) 2-chlorotoluene	16.06	126	569520	197.66	ug/L	97
108) 4-chlorotoluene	16.15	126	581174	199.51	ug/L	99
109) 1,3,5-trimethylbenzene	16.05	105	1919235	201.71	ug/L	100
110) tert-butylbenzene	16.37	119	1641532	200.54	ug/L	99
111) pentachloroethane	16.47	167	408670	204.24	ug/L	98
112) 1,2,4-trimethylbenzene	16.41	105	1939603	200.27	ug/L	100
113) sec-butylbenzene	16.57	105	2469469	201.35	ug/L	99
114) 1,3-dichlorobenzene	16.77	146	1181242	198.08	ug/L	99
115) p-isopropyltoluene	16.68	119	2076408	200.15	ug/L	100
116) 1,4-dichlorobenzene	16.85	146	1182597	196.49	ug/L	99
117) 1,2-dichlorobenzene	17.23	146	1141947	197.22	ug/L	99
118) benzyl chloride	16.96	91	976999	193.40	ug/L	100
119) n-butylbenzene	17.08	92	1097033	198.95	ug/L	100
120) 1,2-dibromo-3-chloropropan	18.00	75	93557	196.22	ug/L	98
121) 1,3,5-TRICHLOROBENZENE	18.17	180	1023498	194.35	ug/L	100
122) 1,2,4-trichlorobenzene	18.83	180	944205	194.54	ug/L	99
123) hexachlorobutadiene	18.93	225	440192	189.00	ug/L	99
124) naphthalene	19.12	128	1754598	189.84	ug/L	100
125) 1,2,3-trichlorobenzene	19.37	180	841823	194.67	ug/L	98
126) hexachloroethane	17.47	201	404095	204.88	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166300.D
 Acq On : 11 Mar 2016 12:52 am
 Operator : tracyk
 Sample : icv7071-50
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 12 16:59:09 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	98267	500.00	ug/L	-0.01
5) pentafluorobenzene	10.74	168	243921	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	354087	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	302791	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	158895	50.00	ug/L	0.00

System Monitoring Compounds

46) dibromofluoromethane (s)	10.81	113	107489	49.84	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	99.68%
47) 1,2-dichloroethane-d4 (s)	11.24	65	109516	49.30	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	98.60%
76) toluene-d8 (s)	13.24	98	390174	50.70	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	101.40%
100) 4-bromofluorobenzene (s)	15.73	95	140421	50.27	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.54%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.45	59	72449	215.15	ug/L	96
3) Ethanol	6.87	45	83888	5265.29	ug/L	99
4) 1,4-dioxane	12.38	88	23291	1266.67	ug/L	95
7) chlorodifluoromethane	4.33	51	138939	45.08	ug/L	98
8) dichlorodifluoromethane	4.29	85	118611	48.34	ug/L	99
10) chloromethane	4.74	50	185919	46.13	ug/L	98
11) vinyl chloride	5.04	62	171485	48.72	ug/L	100
12) bromomethane	5.80	94	107076	51.39	ug/L	99
13) chloroethane	5.99	64	95332	49.02	ug/L	98
14) trichlorofluoromethane	6.49	101	166033	49.18	ug/L	98
16) ethyl ether	7.01	74	69720	49.58	ug/L	99
18) acrolein	7.33	56	268846	477.31	ug/L	99
19) 1,1-dichloroethene	7.50	61	184465	49.83	ug/L	97
20) acetone	7.59	43	33142	45.92	ug/L	96
21) allyl chloride	8.12	76	76066	49.75	ug/L	93
22) acetonitrile	8.12	40	100882	473.61	ug/L	89
23) iodomethane	7.82	142	208336	47.62	ug/L	98
24) iso-butyl alcohol	11.30	74	40217	491.16	ug/L	93
25) carbon disulfide	7.95	76	408862	49.67	ug/L	99
26) methylene chloride	8.35	84	132687	48.20	ug/L	98
27) methyl acetate	8.11	74	17392	46.21	ug/L	96
28) methyl tert butyl ether	8.69	73	676122	96.00	ug/L	95
29) trans-1,2-dichloroethene	8.76	61	178261	48.59	ug/L	98
30) di-isopropyl ether	9.35	45	439134	46.59	ug/L	95
31) 2-butanone	10.17	72	12974	49.68	ug/L	97
32) 1,1-dichloroethane	9.40	63	232865	48.87	ug/L	99
33) chloroprene	9.50	53	168115	44.13	ug/L	99
34) acrylonitrile	8.74	53	220308	249.55	ug/L	99
35) vinyl acetate	9.38	86	20657	48.32	ug/L	71
36) ethyl tert-butyl ether	9.86	59	396627	48.95	ug/L	100
37) ethyl acetate	10.18	45	15525	46.02	ug/L	79
38) 2,2-dichloropropane	10.19	77	164575	45.50	ug/L	100
39) cis-1,2-dichloroethene	10.20	96	141689	46.72	ug/L	97

7.6.10
 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166300.D
 Acq On : 11 Mar 2016 12:52 am
 Operator : tracyk
 Sample : icv7071-50
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 12 16:59:09 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) methylacrylate	10.27	85	17678	51.90	ug/L #	85
41) propionitrile	10.30	54	162631	502.52	ug/L	94
42) bromochloromethane	10.54	128	68267	50.06	ug/L	99
43) tetrahydrofuran	10.58	42	37280	47.46	ug/L	97
44) chloroform	10.60	85	145815	49.13	ug/L	98
45) t-butyl formate	10.62	59	52039	34.33	ug/L #	88
48) freon 113	7.46	151	80251	49.05	ug/L	97
49) methacrylonitrile	10.48	41	72289	48.08	ug/L	98
50) 1,1,1-trichloroethane	10.84	97	179894	50.15	ug/L	100
51) Cyclohexane	10.91	84	173823	49.71	ug/L	100
53) epichlorohydrin	12.90	57	42365	243.99	ug/L	96
54) n-butyl alcohol	11.81	56	154559	2453.52	ug/L	99
55) carbon tetrachloride	11.05	117	162543	48.58	ug/L	96
56) 1,1-dichloropropene	11.03	75	174500	51.90	ug/L	98
57) hexane	9.06	57	124577	37.63	ug/L	99
58) TERT AMYL ALCOHOL	11.19	73	26893	227.37	ug/L	97
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	378812	43.92	ug/L	97
60) benzene	11.30	78	505258	48.97	ug/L	99
61) tert-amyl methyl ether	11.32	87	79445	49.96	ug/L	94
62) heptane	11.44	57	74503	41.86	ug/L	100
63) isopropyl acetate	11.22	43	277444	46.70	ug/L	100
64) 1,2-dichloroethane	11.33	62	153206	49.35	ug/L	97
66) trichloroethene	12.00	95	127545	49.52	ug/L	99
68) methyl methacrylate	12.26	100	28683	50.86	ug/L	95
69) 2-nitropropane	12.76	41	26368	50.59	ug/L	94
70) 2-chloroethyl vinyl ether	12.76	63	79951	244.08	ug/L	99
71) 1,2-dichloropropane	12.27	63	133255	48.63	ug/L	98
72) dibromomethane	12.43	93	73051	49.42	ug/L	99
73) methylcyclohexane	12.19	83	170392	43.89	ug/L	99
74) bromodichloromethane	12.55	83	165543	48.30	ug/L	99
75) cis-1,3-dichloropropene	12.98	75	210841	49.68	ug/L	98
77) 4-methyl-2-pentanone	13.06	58	41435	49.86	ug/L	87
78) toluene	13.31	92	292719	49.13	ug/L	99
79) 3-methyl-1-butanol	13.08	55	93185	955.72	ug/L	98
80) trans-1,3-dichloropropene	13.50	75	179979	48.29	ug/L	99
81) ethyl methacrylate	13.47	69	142200	50.24	ug/L	98
82) 1,1,2-trichloroethane	13.71	83	88090	48.29	ug/L	98
83) 2-hexanone	13.86	58	37029	50.64	ug/L	99
85) tetrachloroethene	13.86	164	105575	49.35	ug/L	99
86) 1,3-dichloropropane	13.88	76	169740	49.01	ug/L	99
87) butyl acetate	13.91	56	66345	50.59	ug/L	95
88) 3,3-dimethyl-1-butanol	14.02	57	94351	468.79	ug/L	99
89) dibromochloromethane	14.13	129	125195	48.43	ug/L	99
90) 1,2-dibromoethane	14.27	107	106526	49.34	ug/L	99
91) chlorobenzene	14.69	112	328325	49.44	ug/L	98
92) 1,1,1,2-tetrachloroethane	14.74	131	123501	48.20	ug/L	98
93) ethylbenzene	14.73	91	538786	48.19	ug/L	99
94) m,p-xylene	14.82	106	414899	98.43	ug/L	99
95) o-xylene	15.22	106	210033	49.81	ug/L	99
96) styrene	15.23	104	353416	48.88	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166300.D
 Acq On : 11 Mar 2016 12:52 am
 Operator : tracyk
 Sample : icv7071-50
 Misc : MS99332,V2A7071,5.0,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 12 16:59:09 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

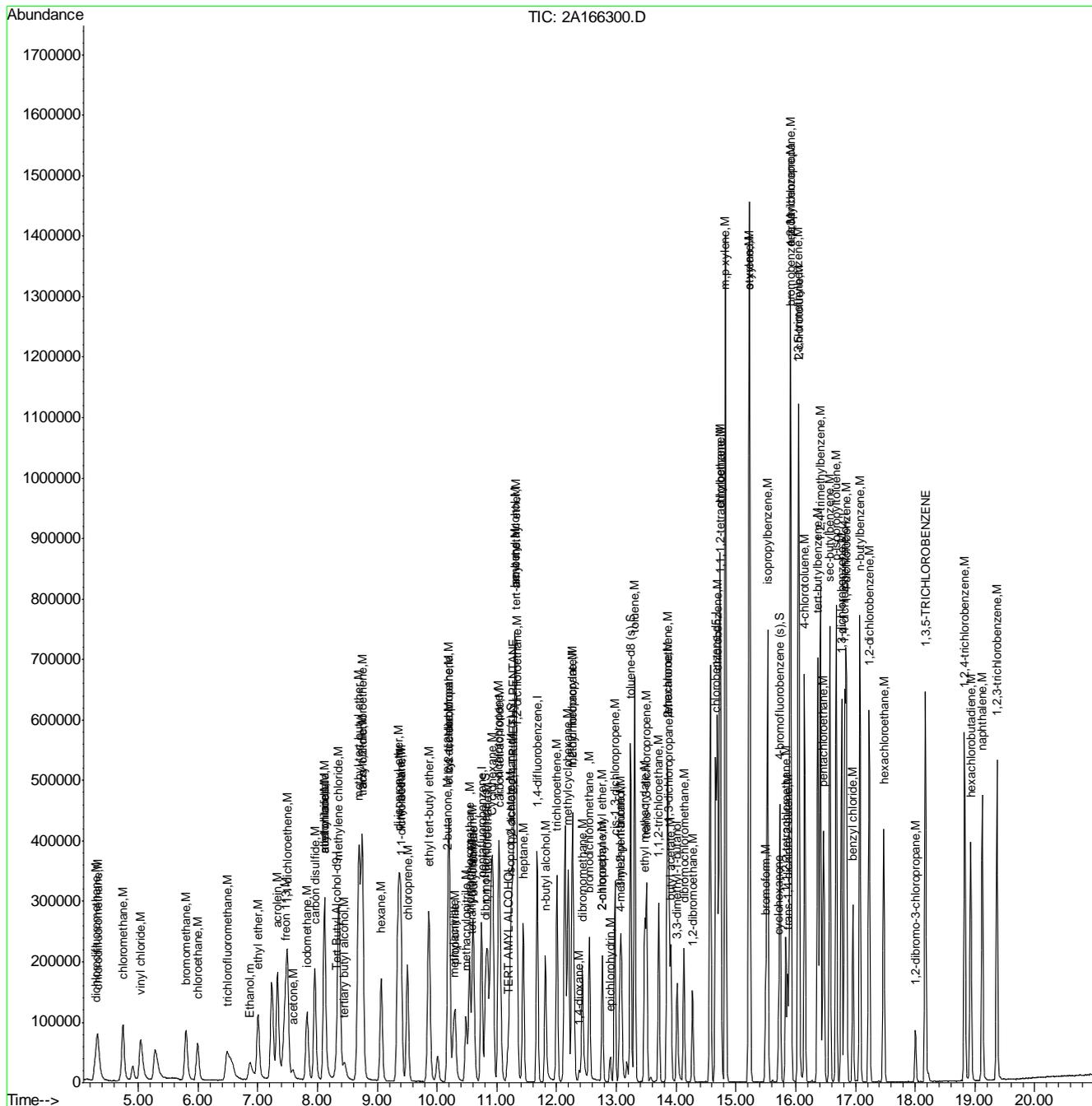
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) bromoform	15.50	173	86986	49.73	ug/L	99
99) isopropylbenzene	15.53	105	522228	48.86	ug/L	100
101) cyclohexanone	15.71	98	12976	405.49	ug/L	99
102) bromobenzene	15.92	156	147823	48.85	ug/L	99
103) 1,1,2,2-tetrachloroethane	15.83	83	130862	48.37	ug/L	100
104) trans-1,4-dichloro-2-buten	15.87	53	35375	52.20	ug/L	97
105) 1,2,3-trichloropropane	15.91	110	31304	48.30	ug/L	99
106) n-propylbenzene	15.91	120	140427	50.32	ug/L	100
107) 2-chlorotoluene	16.06	126	132739	48.14	ug/L	100
108) 4-chlorotoluene	16.15	126	137474	49.49	ug/L	99
109) 1,3,5-trimethylbenzene	16.04	105	442540	48.83	ug/L	99
110) tert-butylbenzene	16.37	119	380194	49.05	ug/L	99
111) pentachloroethane	16.47	167	92955	49.45	ug/L	98
112) 1,2,4-trimethylbenzene	16.41	105	456667	49.55	ug/L	99
113) sec-butylbenzene	16.57	105	563520	48.84	ug/L	100
114) 1,3-dichlorobenzene	16.77	146	274761	47.99	ug/L	99
115) p-isopropyltoluene	16.68	119	489074	49.86	ug/L	99
116) 1,4-dichlorobenzene	16.85	146	278429	48.45	ug/L	100
117) 1,2-dichlorobenzene	17.23	146	270537	49.26	ug/L	100
118) benzyl chloride	16.96	91	217139	44.48	ug/L	100
119) n-butylbenzene	17.07	92	251904	48.61	ug/L	98
120) 1,2-dibromo-3-chloropropan	18.00	75	22501	49.26	ug/L	100
121) 1,3,5-TRICHLOROBENZENE	18.17	180	248421	50.79	ug/L	99
122) 1,2,4-trichlorobenzene	18.83	180	224665	50.45	ug/L	98
123) hexachlorobutadiene	18.93	225	106558	49.52	ug/L	98
124) naphthalene	19.12	128	417560	48.93	ug/L	99
125) 1,2,3-trichlorobenzene	19.37	180	198901	50.33	ug/L	99
126) hexachloroethane	17.47	201	93297	51.37	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2A166300.D
 Acq On : 11 Mar 2016 12:52 am
 Operator : tracyk
 Sample : icv7071-50
 Misc : MS99332,V2A7071,5.0,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 12 16:59:09 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.6.10
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166304.D
 Acq On : 11 Mar 2016 10:59 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99332,V2A7072,5.0,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 09:53:53 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.327	65	99933	500.00	ug/L	0.00
5) pentafluorobenzene	10.748	168	234074	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.679	114	340488	50.00	ug/L	0.00
84) chlorobenzene-d5	14.666	117	288930	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.821	152	153268	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.816	113	104919	50.70	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	101.40%
47) 1,2-dichloroethane-d4 (s)	11.245	65	109626	51.43	ug/L	0.00
Spiked Amount	50.000	Range	73 - 122	Recovery	=	102.86%
76) toluene-d8 (s)	13.243	98	373159	50.42	ug/L	0.00
Spiked Amount	50.000	Range	84 - 119	Recovery	=	100.84%
100) 4-bromofluorobenzene (s)	15.738	95	135359	50.24	ug/L	0.00
Spiked Amount	50.000	Range	78 - 117	Recovery	=	100.48%
Target Compounds						
2) tertiary butyl alcohol	8.457	59	31762	92.75	ug/L	92
3) Ethanol	6.883	45	40866	2229.13	ug/L	99
4) 1,4-dioxane	12.380	88	9448	505.26	ug/L	98
7) chlorodifluoromethane	4.341	51	56846	19.22	ug/L	99
8) dichlorodifluoromethane	4.310	85	49075	20.84	ug/L	99
10) chloromethane	4.760	50	77118	19.94	ug/L	98
11) vinyl chloride	5.053	62	70114	20.76	ug/L	99
12) bromomethane	5.816	94	40176	20.09	ug/L	96
13) chloroethane	5.999	64	37258	19.96	ug/L	96
14) trichlorofluoromethane	6.507	101	68061	21.01	ug/L	94
16) ethyl ether	7.014	74	24575	18.21	ug/L	97
18) acrolein	7.338	56	104886	194.05	ug/L	99
19) 1,1-dichloroethene	7.506	61	67655	19.05	ug/L	98
20) acetone	7.605	43	13279	19.17	ug/L	96
21) allyl chloride	8.128	76	27945	19.05	ug/L	97
22) acetonitrile	8.128	40	39943	195.41	ug/L	96
23) iodomethane	7.835	142	75485	17.98	ug/L	97
24) iso-butyl alcohol	11.313	74	14655	186.51	ug/L #	79
25) carbon disulfide	7.961	76	145384	18.40	ug/L	96
26) methylene chloride	8.358	84	48860	18.50	ug/L	99
27) methyl acetate	8.123	74	6895	19.09	ug/L	97
28) methyl tert butyl ether	8.703	73	127123	18.81	ug/L	100
29) trans-1,2-dichloroethene	8.766	61	66504	18.89	ug/L	99
30) di-isopropyl ether	9.357	45	167514	18.52	ug/L	100
31) 2-butanone	10.183	72	4886	19.49	ug/L #	73
32) 1,1-dichloroethane	9.404	63	85374	18.67	ug/L	100
33) chloroprene	9.509	53	67063	18.35	ug/L	97
34) acrylonitrile	8.750	53	81033	95.65	ug/L	99
35) vinyl acetate	9.388	86	7825	19.07	ug/L	99
36) ethyl tert-butyl ether	9.870	59	146942	18.90	ug/L	98
37) ethyl acetate	10.189	45	6024	18.61	ug/L	66
38) 2,2-dichloropropane	10.199	77	67407	19.42	ug/L	99
39) cis-1,2-dichloroethene	10.210	96	52024	17.88	ug/L	98
40) methylacrylate	10.278	85	6230	19.06	ug/L #	87
41) propionitrile	10.309	54	61452	197.87	ug/L	99
42) bromochloromethane	10.550	128	25191	19.25	ug/L	98
43) tetrahydrofuran	10.586	42	14563	19.32	ug/L	90
44) chloroform	10.602	85	52643	18.48	ug/L	98
45) t-butyl formate	10.623	59	26075	17.92	ug/L	95
48) freon 113	7.474	151	31314	19.94	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166304.D
 Acq On : 11 Mar 2016 10:59 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99332,V2A7072,5.0,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 09:53:53 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.492	41	28065	19.45	ug/L	98
50) 1,1,1-trichloroethane	10.848	97	65373	18.99	ug/L	99
51) Cyclohexane	10.910	84	65057	19.39	ug/L	97
53) epichlorohydrin	12.898	57	16101	96.43	ug/L	97
54) n-butyl alcohol	11.815	56	64286	1061.25	ug/L	98
55) carbon tetrachloride	11.052	117	62054	19.29	ug/L	99
56) 1,1-dichloropropene	11.031	75	61438	19.00	ug/L	98
57) hexane	9.075	57	64233	20.18	ug/L	98
58) TERT AMYL ALCOHOL	11.193	73	12687	111.55	ug/L	91
59) 2,2,4-TRIMETHYLPENTANE	11.277	57	166522	20.08	ug/L	99
60) benzene	11.303	78	183288	18.47	ug/L	99
61) tert-amyl methyl ether	11.324	87	29164	19.07	ug/L	96
62) heptane	11.444	57	34632	20.23	ug/L	97
63) isopropyl acetate	11.224	43	114090	19.97	ug/L	100
64) 1,2-dichloroethane	11.339	62	57236	19.17	ug/L	98
66) trichloroethene	12.004	95	45882	18.53	ug/L	98
68) methyl methacrylate	12.260	100	10579	19.51	ug/L	98
69) 2-nitropropane	12.767	41	9847	19.65	ug/L	97
70) 2-chloroethyl vinyl ether	12.767	63	27243	86.49	ug/L	98
71) 1,2-dichloropropene	12.270	63	50034	18.99	ug/L	99
72) dibromomethane	12.432	93	27852	19.60	ug/L	98
73) methylcyclohexane	12.197	83	70072	18.77	ug/L	98
74) bromodichloromethane	12.553	83	61633	18.70	ug/L	99
75) cis-1,3-dichloropropene	12.976	75	78305	19.19	ug/L	96
77) 4-methyl-2-pentanone	13.060	58	15266	19.10	ug/L	92
78) toluene	13.311	92	105913	18.49	ug/L	97
79) 3-methyl-1-butanol	13.086	55	37850	403.70	ug/L	95
80) trans-1,3-dichloropropene	13.505	75	69640	19.43	ug/L	97
81) ethyl methacrylate	13.478	69	52052	19.13	ug/L	98
82) 1,1,2-trichloroethane	13.714	83	33001	18.81	ug/L	97
83) 2-hexanone	13.855	58	14083	20.03	ug/L	98
85) tetrachloroethene	13.855	164	38716	18.96	ug/L	98
86) 1,3-dichloropropane	13.881	76	64579	19.54	ug/L	100
87) butyl acetate	13.913	56	23702	18.94	ug/L	97
88) 3,3-dimethyl-1-butanol	14.017	57	38597	200.97	ug/L	99
89) dibromochloromethane	14.132	129	47705	19.34	ug/L	98
90) 1,2-dibromoethane	14.273	107	39916	19.37	ug/L	98
91) chlorobenzene	14.692	112	120329	18.99	ug/L	97
92) 1,1,1,2-tetrachloroethane	14.749	131	46120	18.86	ug/L	99
93) ethylbenzene	14.729	91	199648	18.71	ug/L	99
94) m,p-xylene	14.828	106	151691	37.72	ug/L	97
95) o-xylene	15.220	106	75276	18.71	ug/L	99
96) styrene	15.231	104	130398	18.90	ug/L	98
97) bromoform	15.503	173	32264	19.33	ug/L	99
99) isopropylbenzene	15.529	105	192435	18.67	ug/L	99
101) cyclohexanone	15.717	98	12043	390.15	ug/L	95
102) bromobenzene	15.921	156	56184	19.25	ug/L	97
103) 1,1,2,2-tetrachloroethane	15.837	83	50634	19.40	ug/L	97
104) trans-1,4-dichloro-2-b...	15.869	53	13327	20.39	ug/L	92
105) 1,2,3-trichloropropane	15.911	110	12200	19.52	ug/L	97
106) n-propylbenzene	15.911	120	51326	19.07	ug/L	95
107) 2-chlorotoluene	16.062	126	49806	18.73	ug/L	97
108) 4-chlorotoluene	16.151	126	50450	18.83	ug/L	96
109) 1,3,5-trimethylbenzene	16.047	105	163494	18.70	ug/L	97
110) tert-butylbenzene	16.371	119	140644	18.81	ug/L	99
111) pentachloroethane	16.470	167	35016	19.31	ug/L	98
112) 1,2,4-trimethylbenzene	16.418	105	167283	18.82	ug/L	99
113) sec-butylbenzene	16.570	105	211983	19.05	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166304.D
 Acq On : 11 Mar 2016 10:59 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99332,V2A7072,5.0,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 09:53:53 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,3-dichlorobenzene	16.768	146	104868	18.99	ug/L	98
115) p-isopropyltoluene	16.679	119	181760	19.21	ug/L	99
116) 1,4-dichlorobenzene	16.847	146	105983	19.12	ug/L	98
117) 1,2-dichlorobenzene	17.229	146	103428	19.52	ug/L	99
118) benzyl chloride	16.957	91	96176	20.42	ug/L	99
119) n-butylbenzene	17.077	92	96450	19.29	ug/L	99
120) 1,2-dibromo-3-chloropr...	18.003	75	8604	19.53	ug/L	95
121) 1,3,5-TRICHLOROENZENE	18.170	180	92690	19.64	ug/L	99
122) 1,2,4-trichlorobenzene	18.829	180	84773	19.74	ug/L	99
123) hexachlorobutadiene	18.928	225	40625	19.57	ug/L	99
124) naphthalene	19.122	128	161796	19.66	ug/L	100
125) 1,2,3-trichlorobenzene	19.368	180	74682	19.59	ug/L	97
126) hexachloroethane	17.474	201	34335	19.60	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

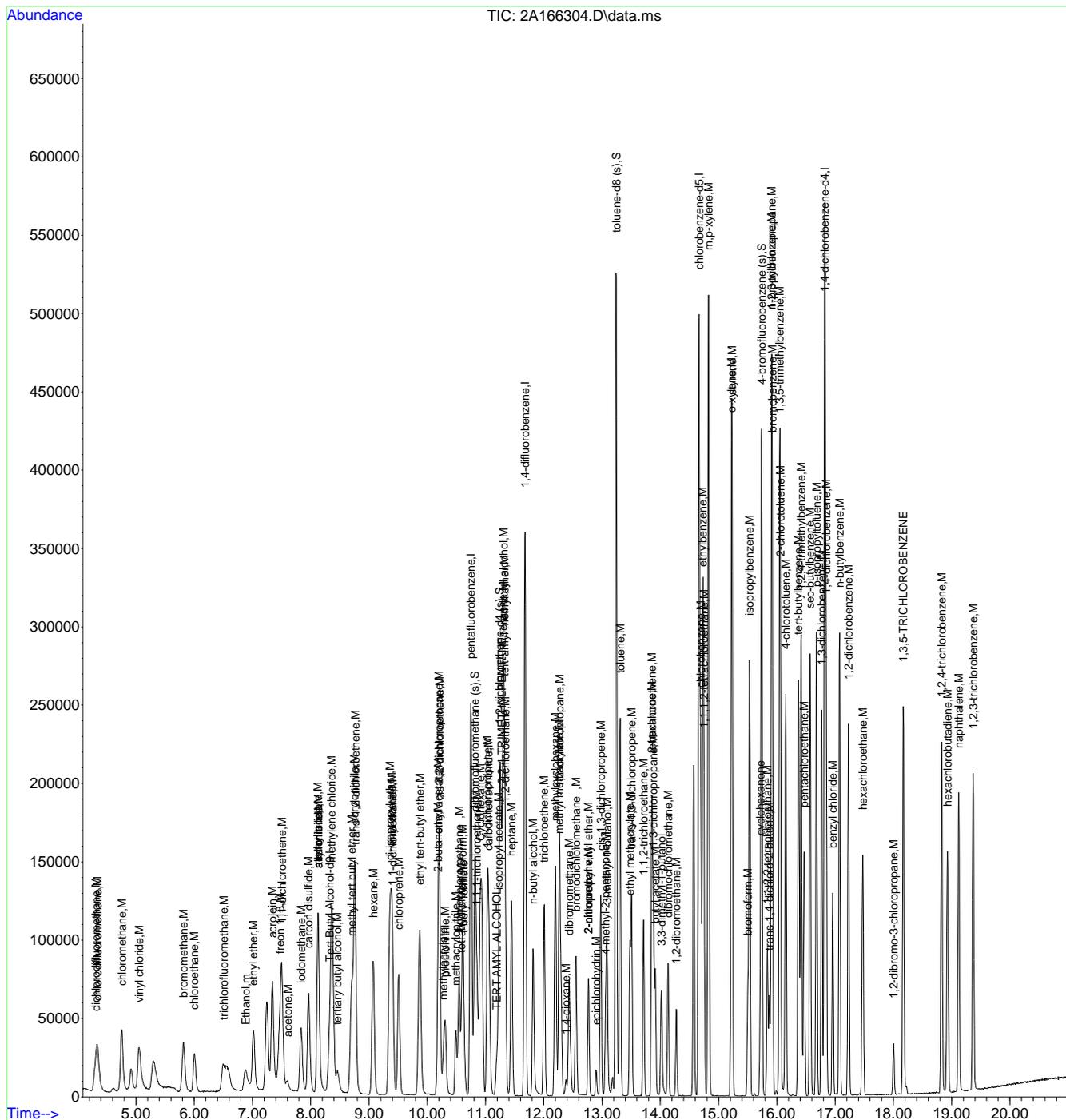
7.6.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166304.D
 Acq On : 11 Mar 2016 10:59 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99332,V2A7072,5.0,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 09:53:53 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.6.11
 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166325.D
 Acq On : 11 Mar 2016 9:35 pm
 Operator : tracyk
 Sample : ecc7071-20
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 10:10:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Tert Butyl Alcohol-d9	8.332	65	99764	500.00	ug/L	0.00	
5) pentafluorobenzene	10.748	168	237184	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	339965	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	284466	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	154376	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.816	113	105106	50.12	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	100.24%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	109921	50.89	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	101.78%	
76) toluene-d8 (s)	13.238	98	368978	49.93	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.86%	
100) 4-bromofluorobenzene (s)	15.733	95	134311	49.49	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	98.98%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.452	59	29075	85.05	ug/L		93
3) Ethanol	6.883	45	39822	2162.42	ug/L		100
4) 1,4-dioxane	12.380	88	9663	517.63	ug/L		93
7) chlorodifluoromethane	4.336	51	54944	18.33	ug/L		97
8) dichlorodifluoromethane	4.305	85	48234	20.22	ug/L		98
10) chloromethane	4.754	50	75921	19.37	ug/L		99
11) vinyl chloride	5.047	62	67823	19.82	ug/L		98
12) bromomethane	5.816	94	38433	18.97	ug/L		99
13) chloroethane	6.004	64	36232	19.16	ug/L		99
14) trichlorofluoromethane	6.496	101	65216	19.87	ug/L		98
16) ethyl ether	7.014	74	24411	17.85	ug/L		99
18) acrolein	7.338	56	100360	183.24	ug/L		99
19) 1,1-dichloroethene	7.506	61	66680	18.52	ug/L		98
20) acetone	7.600	43	15387	21.92	ug/L		99
21) allyl chloride	8.128	76	25786	17.34	ug/L		99
22) acetonitrile	8.123	40	40095	193.58	ug/L		91
23) iodomethane	7.835	142	77911	18.31	ug/L		98
24) iso-butyl alcohol	11.308	74	14652	184.02	ug/L		92
25) carbon disulfide	7.961	76	139480	17.42	ug/L		99
26) methylene chloride	8.358	84	48166	17.99	ug/L		98
27) methyl acetate	8.128	74	6817	18.63	ug/L		91
28) methyl tert butyl ether	8.703	73	127549	18.63	ug/L		100
29) trans-1,2-dichloroethene	8.766	61	67460	18.91	ug/L		98
30) di-isopropyl ether	9.357	45	167144	18.24	ug/L		98
31) 2-butanone	10.178	72	4906	19.32	ug/L	#	70
32) 1,1-dichloroethane	9.404	63	85485	18.45	ug/L		98
33) chloroprene	9.509	53	67174	18.14	ug/L		97
34) acrylonitrile	8.750	53	79667	92.80	ug/L		99
35) vinyl acetate	9.388	86	7737	18.61	ug/L		82
36) ethyl tert-butyl ether	9.864	59	144993	18.40	ug/L		100
37) ethyl acetate	10.189	45	5995	18.27	ug/L		73
38) 2,2-dichloropropane	10.194	77	53628	15.25	ug/L		98
39) cis-1,2-dichloroethene	10.210	96	51531	17.47	ug/L		99
40) methylacrylate	10.278	85	6277	18.95	ug/L	#	71
41) propionitrile	10.304	54	61444	195.25	ug/L		95
42) bromochloromethane	10.544	128	25231	19.03	ug/L		97
43) tetrahydrofuran	10.576	42	14737	19.29	ug/L		96
44) chloroform	10.607	85	52271	18.11	ug/L		100
45) t-butyl formate	10.628	59	27679	18.78	ug/L		96
48) freon 113	7.474	151	28669	18.02	ug/L		97

7.6.12
 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166325.D
 Acq On : 11 Mar 2016 9:35 pm
 Operator : tracyk
 Sample : ecc7071-20
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 10:10:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.487	41	28292	19.35	ug/L	94
50) 1,1,1-trichloroethane	10.848	97	63957	18.34	ug/L	98
51) Cyclohexane	10.910	84	64032	18.83	ug/L	95
53) epichlorohydrin	12.898	57	14371	86.21	ug/L	95
54) n-butyl alcohol	11.815	56	62871	1039.49	ug/L	97
55) carbon tetrachloride	11.052	117	60756	18.91	ug/L	96
56) 1,1-dichloropropene	11.031	75	59526	18.44	ug/L	99
57) hexane	9.069	57	56797	17.87	ug/L	97
58) TERT AMYL ALCOHOL	11.188	73	12149	106.98	ug/L	94
59) 2,2,4-TRIMETHYLPENTANE	11.271	57	150669	18.20	ug/L	97
60) benzene	11.303	78	182179	18.39	ug/L	100
61) tert-amyl methyl ether	11.324	87	28562	18.71	ug/L	96
62) heptane	11.444	57	29437	17.22	ug/L	98
63) isopropyl acetate	11.224	43	109405	19.18	ug/L	97
64) 1,2-dichloroethane	11.334	62	58622	19.67	ug/L	100
66) trichloroethene	12.004	95	45737	18.50	ug/L	97
68) methyl methacrylate	12.265	100	10151	18.75	ug/L	93
69) 2-nitropropane	12.762	41	9961	19.91	ug/L	90
70) 2-chloroethyl vinyl ether	12.762	63	24467	77.80	ug/L	98
71) 1,2-dichloropropene	12.270	63	49949	18.98	ug/L	95
72) dibromomethane	12.427	93	27925	19.68	ug/L	97
73) methylcyclohexane	12.197	83	67698	18.16	ug/L	98
74) bromodichloromethane	12.553	83	61071	18.56	ug/L	98
75) cis-1,3-dichloropropene	12.976	75	73997	18.16	ug/L	95
77) 4-methyl-2-pentanone	13.060	58	15405	19.31	ug/L #	78
78) toluene	13.306	92	103357	18.07	ug/L	100
79) 3-methyl-1-butanol	13.081	55	35864	383.10	ug/L	96
80) trans-1,3-dichloropropene	13.505	75	65965	18.44	ug/L	97
81) ethyl methacrylate	13.479	69	51113	18.81	ug/L	99
82) 1,1,2-trichloroethane	13.714	83	32811	18.73	ug/L	96
83) 2-hexanone	13.855	58	13669	19.47	ug/L	93
85) tetrachloroethene	13.855	164	37394	18.60	ug/L	97
86) 1,3-dichloropropane	13.881	76	63557	19.53	ug/L	97
87) butyl acetate	13.913	56	24277	19.70	ug/L	98
88) 3,3-dimethyl-1-butanol	14.017	57	37923	200.56	ug/L	98
89) dibromochloromethane	14.132	129	47370	19.50	ug/L	99
90) 1,2-dibromoethane	14.273	107	38963	19.21	ug/L	99
91) chlorobenzene	14.692	112	117003	18.75	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.749	131	46349	19.26	ug/L	96
93) ethylbenzene	14.729	91	192414	18.32	ug/L	99
94) m,p-xylene	14.828	106	147553	37.26	ug/L	98
95) o-xylene	15.220	106	73148	18.46	ug/L	100
96) styrene	15.231	104	128487	18.92	ug/L	98
97) bromoform	15.497	173	31984	19.46	ug/L	96
99) isopropylbenzene	15.529	105	190461	18.34	ug/L	99
101) cyclohexanone	15.717	98	5526	177.74	ug/L	94
102) bromobenzene	15.921	156	55543	18.89	ug/L	98
103) 1,1,2,2-tetrachloroethane	15.832	83	50676	19.28	ug/L	97
104) trans-1,4-dichloro-2-b...	15.869	53	11732	17.82	ug/L	98
105) 1,2,3-trichloropropane	15.905	110	11965	19.00	ug/L	94
106) n-propylbenzene	15.911	120	49041	18.09	ug/L	91
107) 2-chlorotoluene	16.057	126	48667	18.17	ug/L	97
108) 4-chlorotoluene	16.151	126	49676	18.41	ug/L	97
109) 1,3,5-trimethylbenzene	16.041	105	159236	18.08	ug/L	100
110) tert-butylbenzene	16.371	119	140662	18.68	ug/L	98
111) pentachloroethane	16.465	167	34678	18.99	ug/L	97
112) 1,2,4-trimethylbenzene	16.413	105	163947	18.31	ug/L	99
113) sec-butylbenzene	16.570	105	204383	18.23	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166325.D
 Acq On : 11 Mar 2016 9:35 pm
 Operator : tracyk
 Sample : ecc7071-20
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 10:10:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

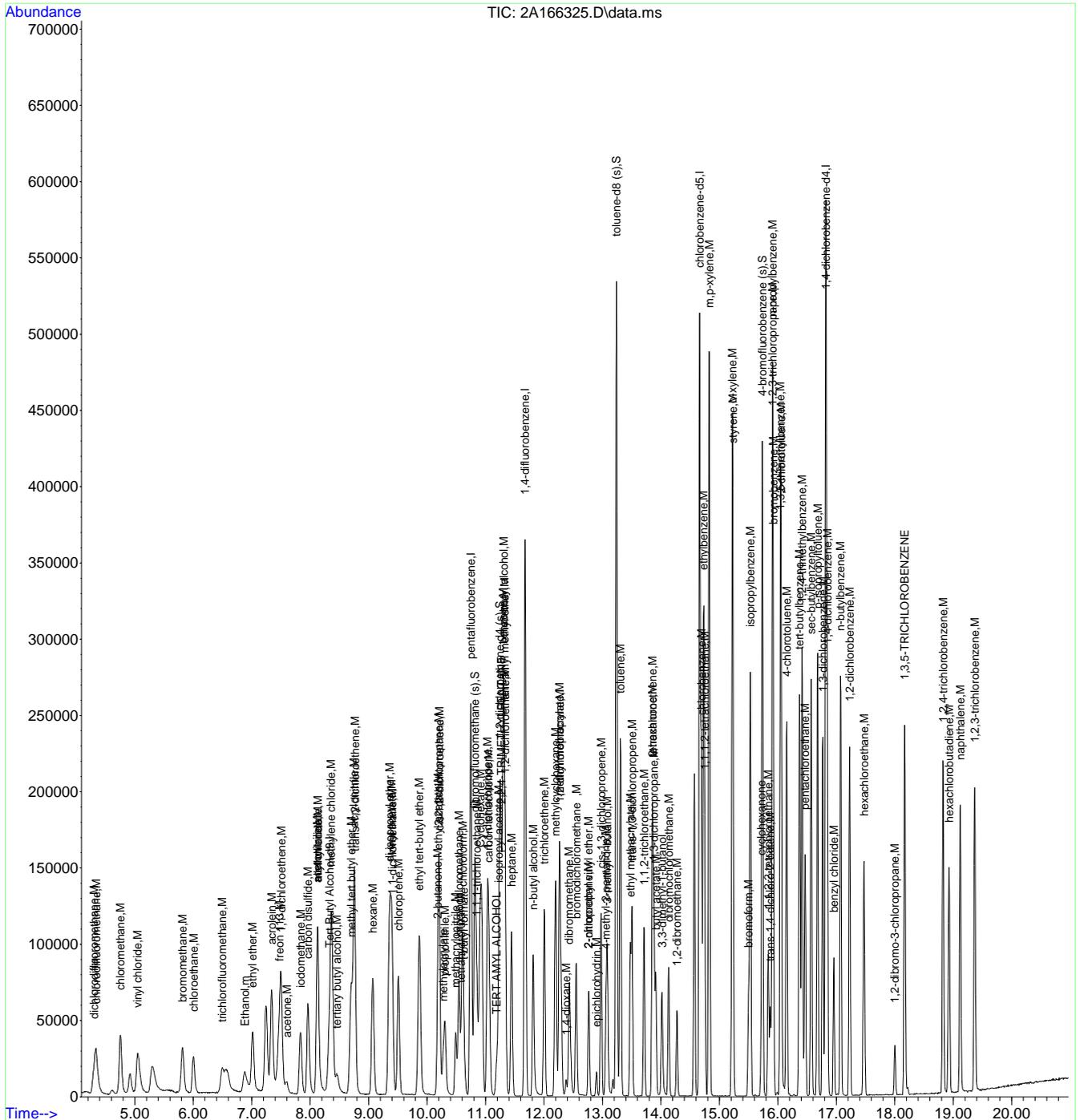
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,3-dichlorobenzene	16.768	146	103868	18.67	ug/L	97
115) p-isopropyltoluene	16.679	119	174468	18.31	ug/L	99
116) 1,4-dichlorobenzene	16.847	146	105268	18.85	ug/L	97
117) 1,2-dichlorobenzene	17.229	146	101795	19.08	ug/L	98
118) benzyl chloride	16.957	91	66449	14.01	ug/L	100
119) n-butylbenzene	17.072	92	90367	17.95	ug/L	94
120) 1,2-dibromo-3-chloropr...	17.997	75	9065	20.43	ug/L	80
121) 1,3,5-TRICHLOROENZENE	18.170	180	88720	18.67	ug/L	99
122) 1,2,4-trichlorobenzene	18.829	180	82768	19.13	ug/L	98
123) hexachlorobutadiene	18.928	225	38708	18.52	ug/L	97
124) naphthalene	19.122	128	161249	19.45	ug/L	100
125) 1,2,3-trichlorobenzene	19.368	180	74830	19.49	ug/L	98
126) hexachloroethane	17.474	201	33011	18.71	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166325.D
 Acq On : 11 Mar 2016 9:35 pm
 Operator : tracyk
 Sample : ecc7071-20
 Misc : MS99488,V2A7072,5.0,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 15 10:10:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166375.D
 Acq On : 14 Mar 2016 9:55 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99478,V2A7074,5.0,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 10:17:04 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Tert Butyl Alcohol-d9	8.322	65	96238	500.00	ug/L	0.00	
5) pentafluorobenzene	10.748	168	237779	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.674	114	341906	50.00	ug/L	0.00	
84) chlorobenzene-d5	14.661	117	285325	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	16.821	152	164410	50.00	ug/L	0.00	
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.816	113	107207	51.00	ug/L	0.00	
Spiked Amount	50.000	Range	76 - 120	Recovery	=	102.00%	
47) 1,2-dichloroethane-d4 (s)	11.245	65	113790	52.55	ug/L	0.00	
Spiked Amount	50.000	Range	73 - 122	Recovery	=	105.10%	
76) toluene-d8 (s)	13.238	98	368521	49.59	ug/L	0.00	
Spiked Amount	50.000	Range	84 - 119	Recovery	=	99.18%	
100) 4-bromofluorobenzene (s)	15.733	95	136848	47.35	ug/L	0.00	
Spiked Amount	50.000	Range	78 - 117	Recovery	=	94.70%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	8.458	59	26189	79.41	ug/L		92
3) Ethanol	6.868	45	40604	2317.73	ug/L		99
4) 1,4-dioxane	12.375	88	10177	565.14	ug/L		91
7) chlorodifluoromethane	4.331	51	63245	21.05	ug/L		98
8) dichlorodifluoromethane	4.294	85	53902	22.54	ug/L		99
10) chloromethane	4.749	50	83553	21.27	ug/L		99
11) vinyl chloride	5.048	62	72630	21.17	ug/L		97
12) bromomethane	5.816	94	40907	20.14	ug/L		96
13) chloroethane	5.999	64	39133	20.64	ug/L		98
14) trichlorofluoromethane	6.486	101	71156	21.62	ug/L		96
16) ethyl ether	7.009	74	25739	18.78	ug/L		99
18) acrolein	7.333	56	106963	194.81	ug/L		99
19) 1,1-dichloroethene	7.500	61	72157	20.00	ug/L		98
20) acetone	7.589	43	13956	19.84	ug/L		100
21) allyl chloride	8.123	76	27989	18.78	ug/L	#	78
22) acetonitrile	8.123	40	44560	214.60	ug/L		98
23) iodomethane	7.830	142	79030	18.53	ug/L		96
24) iso-butyl alcohol	11.313	74	15727	197.03	ug/L	#	69
25) carbon disulfide	7.961	76	148069	18.45	ug/L		96
26) methylene chloride	8.353	84	53093	19.78	ug/L		92
27) methyl acetate	8.123	74	7078	19.29	ug/L		94
28) methyl tert butyl ether	8.698	73	136518	19.89	ug/L		99
29) trans-1,2-dichloroethene	8.761	61	74044	20.70	ug/L		95
30) di-isopropyl ether	9.357	45	185368	20.18	ug/L		90
31) 2-butanone	10.173	72	4925	19.34	ug/L	#	88
32) 1,1-dichloroethane	9.399	63	94663	20.38	ug/L		99
33) chloroprene	9.504	53	73608	19.82	ug/L		97
34) acrylonitrile	8.745	53	85606	99.47	ug/L		96
35) vinyl acetate	9.383	86	8391	20.13	ug/L		51
36) ethyl tert-butyl ether	9.865	59	157912	19.99	ug/L		99
37) ethyl acetate	10.184	45	6325	19.23	ug/L		58
38) 2,2-dichloropropane	10.194	77	76598	21.72	ug/L		98
39) cis-1,2-dichloroethene	10.205	96	56783	19.21	ug/L		97
40) methylacrylate	10.273	85	6174	18.59	ug/L	#	81
41) propionitrile	10.304	54	63926	202.63	ug/L		99
42) bromochloromethane	10.544	128	27366	20.58	ug/L		99
43) tetrahydrofuran	10.581	42	15639	20.42	ug/L		99
44) chloroform	10.602	85	58541	20.23	ug/L		99
45) t-butyl formate	10.618	59	32166	21.77	ug/L		96
48) freon 113	7.469	151	31179	19.55	ug/L		96

7.6.13
 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166375.D
 Acq On : 14 Mar 2016 9:55 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99478,V2A7074,5.0,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 10:17:04 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methacrylonitrile	10.482	41	29395	20.05	ug/L	96
50) 1,1,1-trichloroethane	10.848	97	71727	20.51	ug/L	98
51) Cyclohexane	10.911	84	69520	20.39	ug/L	95
53) epichlorohydrin	12.898	57	16748	99.89	ug/L	96
54) n-butyl alcohol	11.810	56	58779	966.32	ug/L	99
55) carbon tetrachloride	11.052	117	69018	21.36	ug/L	96
56) 1,1-dichloropropene	11.031	75	65133	20.06	ug/L	96
57) hexane	9.070	57	65919	20.62	ug/L	99
58) TERT AMYL ALCOHOL	11.183	73	10636	93.13	ug/L	98
59) 2,2,4-TRIMETHYLPENTANE	11.277	57	176640	21.21	ug/L	98
60) benzene	11.303	78	195308	19.60	ug/L	99
61) tert-amyl methyl ether	11.324	87	30797	20.06	ug/L	93
62) heptane	11.444	57	35643	20.74	ug/L	96
63) isopropyl acetate	11.224	43	119019	20.75	ug/L	99
64) 1,2-dichloroethane	11.334	62	64636	21.56	ug/L	98
66) trichloroethene	12.004	95	48922	19.67	ug/L	97
68) methyl methacrylate	12.260	100	10540	19.35	ug/L #	87
69) 2-nitropropane	12.767	41	11218	22.29	ug/L	95
70) 2-chloroethyl vinyl ether	12.767	63	36235	114.56	ug/L	99
71) 1,2-dichloropropene	12.270	63	53586	20.25	ug/L	97
72) dibromomethane	12.427	93	29798	20.88	ug/L	97
73) methylcyclohexane	12.197	83	73854	19.70	ug/L	98
74) bromodichloromethane	12.548	83	68143	20.59	ug/L	100
75) cis-1,3-dichloropropene	12.977	75	82726	20.19	ug/L	94
77) 4-methyl-2-pentanone	13.065	58	15352	19.13	ug/L #	72
78) toluene	13.306	92	110067	19.13	ug/L	99
79) 3-methyl-1-butanol	13.081	55	32835	348.76	ug/L	96
80) trans-1,3-dichloropropene	13.505	75	74101	20.59	ug/L	96
81) ethyl methacrylate	13.479	69	53008	19.40	ug/L	99
82) 1,1,2-trichloroethane	13.714	83	35020	19.88	ug/L	100
83) 2-hexanone	13.860	58	13998	19.83	ug/L	97
85) tetrachloroethene	13.855	164	40106	19.89	ug/L	96
86) 1,3-dichloropropane	13.881	76	67814	20.78	ug/L	98
87) butyl acetate	13.913	56	24950	20.19	ug/L	97
88) 3,3-dimethyl-1-butanol	14.017	57	33284	175.50	ug/L	98
89) dibromochloromethane	14.132	129	51187	21.01	ug/L	97
90) 1,2-dibromoethane	14.274	107	41185	20.24	ug/L	95
91) chlorobenzene	14.692	112	125628	20.07	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.750	131	51166	21.19	ug/L	98
93) ethylbenzene	14.729	91	209101	19.85	ug/L	100
94) m,p-xylene	14.828	106	157892	39.75	ug/L	98
95) o-xylene	15.220	106	80717	20.31	ug/L	98
96) styrene	15.231	104	137965	20.25	ug/L	95
97) bromoform	15.503	173	35595	21.60	ug/L	99
99) isopropylbenzene	15.529	105	209383	18.93	ug/L	99
101) cyclohexanone	15.717	98	14497	437.82	ug/L	89
102) bromobenzene	15.921	156	60489	19.32	ug/L	97
103) 1,1,2,2-tetrachloroethane	15.837	83	53883	19.25	ug/L	99
104) trans-1,4-dichloro-2-b...	15.869	53	14646	20.89	ug/L	87
105) 1,2,3-trichloropropane	15.911	110	13100	19.53	ug/L	99
106) n-propylbenzene	15.911	120	54986	19.04	ug/L	97
107) 2-chlorotoluene	16.062	126	54448	19.08	ug/L	99
108) 4-chlorotoluene	16.151	126	55379	19.27	ug/L	98
109) 1,3,5-trimethylbenzene	16.047	105	179200	19.11	ug/L	100
110) tert-butylbenzene	16.371	119	151773	18.92	ug/L	97
111) pentachloroethane	16.470	167	39771	20.45	ug/L	98
112) 1,2,4-trimethylbenzene	16.413	105	184746	19.37	ug/L	99
113) sec-butylbenzene	16.570	105	232654	19.49	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\v2a7072-7075\
 Data File : 2A166375.D
 Acq On : 14 Mar 2016 9:55 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99478,V2A7074,5.0,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 10:17:04 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration

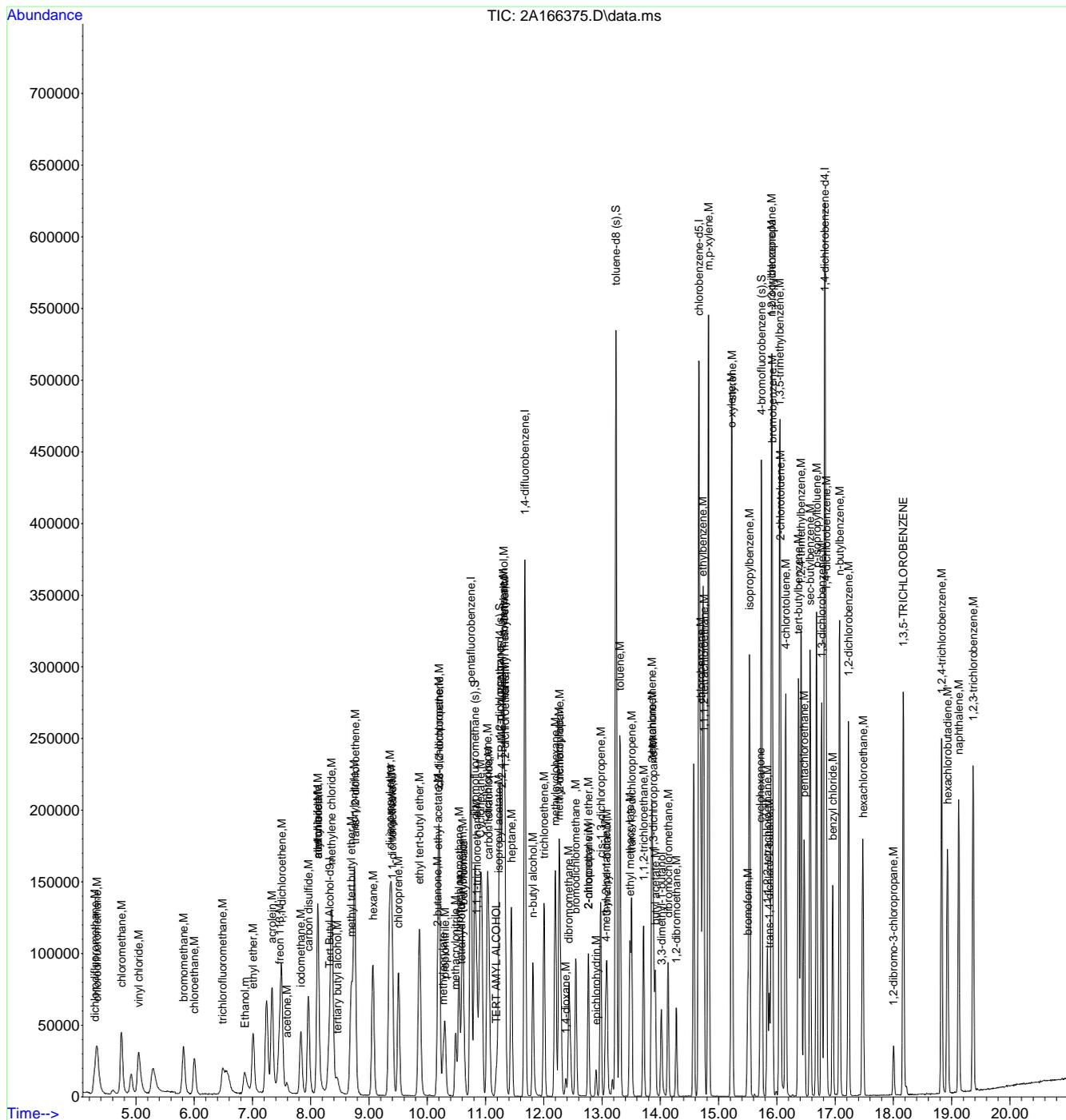
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,3-dichlorobenzene	16.768	146	116965	19.74	ug/L	98
115) p-isopropyltoluene	16.680	119	198302	19.54	ug/L	99
116) 1,4-dichlorobenzene	16.847	146	117551	19.77	ug/L	100
117) 1,2-dichlorobenzene	17.229	146	114231	20.10	ug/L	99
118) benzyl chloride	16.957	91	107546	21.29	ug/L	99
119) n-butylbenzene	17.077	92	106419	19.85	ug/L	98
120) 1,2-dibromo-3-chloropr...	17.998	75	9539	20.18	ug/L	80
121) 1,3,5-TRICHLOROENZENE	18.170	180	102692	20.29	ug/L	100
122) 1,2,4-trichlorobenzene	18.829	180	91768	19.92	ug/L	99
123) hexachlorobutadiene	18.929	225	44279	19.89	ug/L	97
124) naphthalene	19.122	128	171834	19.46	ug/L	99
125) 1,2,3-trichlorobenzene	19.368	180	81172	19.85	ug/L	99
126) hexachloroethane	17.480	201	37584	20.00	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2A\2a7072-7075\
 Data File : 2A166375.D
 Acq On : 14 Mar 2016 9:55 am
 Operator : tracyk
 Sample : cc7071-20
 Misc : MS99478,V2A7074,5.0,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 10:17:04 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M2A7071.M
 Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
 QLast Update : Sat Mar 12 15:58:04 2016
 Response via : Initial Calibration



7.6.13
 7

Date: 3/10/16

Print Analyst Name: Tracy Karpinska

Standard Data

Standard Data

Lot #	Description	Conc.
V015-2284 33	A	9 100ppm
V015-2284 37	B	7 100ppm
V015-2284 36	C	9 100ppm
V015-2284 32	Acro	13 1000ppm
V015-2284 42	Alcohols	7 1000ppm

Lot #	Description	Conc.
V015-2284 31	EXTA	7 100ppm
V015-2284 7	EXTB	21 100ppm
V015-2284 38	EXTC	10 100ppm
V015-2258 14	EXTACRO	9 1000ppm
V015-2258 14	EXTEDH	2 10000ppm

Analyst Signature: TK

Columns: 781024(100m x 2.5mm x 1.4µm)

Method V8210DC

Initial Cal. Method M2A7071

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044. M 3/10

Supervisor Signature: [Signature] Date: 3/12/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L + S	I S U	Status (Data)	Comments	pH* <2
	2A116287	BFB										OK		
	116288	IC7071-0.2	8260C initial	AQ			5					OK	2µl of A, B, C, Acro, Alcohols / 100 mL FV DI	
	116289	IC7071-0.5	✓	AQ			5					OK	5µl of A, B, C, Acro, Alcohols / 1000 mL FV DI	
	116290	IC7071-D2	✓	AQ			5					OK	2µl of A, B, C, Acro, Alcohols / 2-ethylone 1000 mL FV DI	
	116291	IC7071-2	✓	AQ			5					OK	2µl of A, B, C, Acro, Alcohols / 100 mL FV DI	
	116292	IC7071-5	✓	AQ			5					OK	5µl of A, B, C, Acro, Alcohols / 100 mL FV DI	
	116293	IC7071-10	✓	AQ			5					OK	10µl of A, B, C, Acro, Alcohols / 100 mL FV DI	
	116294	IC7071-20	✓	AQ			5					OK	20µl of A, B, C, Acro, Alcohols / 100 mL FV DI	
	116295	IC7071-50	✓	AQ			5					OK	25µl of A, B, C, Acro, Alcohols / 50 mL FV DI	
	116296	IC7071-100	✓	AQ			5					OK	50µl of A, B, C, Acro, Alcohols / 50 mL FV DI	
	116297	IC7071-200	✓	AQ			5					OK	100µl of A, B, C, Acro, Alcohols / 50 mL FV DI	
	116298	IB										%		
	116299	IB										%		
	116300	ICV7071-50	✓	AQ			5					OK	25µl of EXTRA EXTACRO EXTB EXTEDH EXTC Hexane / 50 mL FV DI	
	116301	IB										%		

[Signature] 3/12/2016

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt = volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Date: 3/11/15

Print Analyst Name: Tracy Karpinski

Standard Data

Standard Data

Lot #	Description	Conc.
VO15-2284 33	A	9 100ppm
VO15-2284 37	B	7 100ppm
VO15-2284 43	C	4 100ppm
VO15-2284 32	Acro	13 1000ppm
VO15-2284 42	7 EXT Alcohols	500-1000 ppm

Lot #	Description	Conc.
VO15-2284 31	EXTA	5 100ppm
VO15-2284 7	EXTB	29 100ppm
VO15-2284 38	EXTC	10 100ppm
VO15-2258 141	EXTAcro	9 1000ppm
VO15-2258 147	EXTETH	2 10000ppm

Analyst Signature: TKaph

Columns: ZB624(100mx.25mmx1.4µm)

Method V8200C

Initial Cal. Method N2A7071

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 3/11/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L	I	S	Status (Data)	Comments	pH < 2
	2A1106303	BFB											AC	10:25 Am	
	1106304	EC1071-20											MAC	10 µl of A, B, C, Acro, Alcohols / 50 mL FV DI	
	1106305	IB													
	1106306	MB1											MAC		
	1106307	BS											MAC	25 µl of EXT A, EXT Acro, EXT B, EXT ETH, EXT C, Hexane / 50 mL FV DI	
	1106308	IB													
	1106309	JC15093-3	99443 STD		5		5		IX				MAC		✓
	1106310	JC15093-1	✓		1		5		IX				MAC		✓
	1106311	JC15093-2	✓		2		5		IX				MAC		✓
	1106312	JC15093-3MS	✓		3		5		IX				MAC	25 µl of EXT A, EXT Acro, EXT B, EXT ETH, EXT C, Hexane / 50 mL FV	✓
	1106313	JC15093-3MSD	✓		4 TH 3 RD		5		IX				MAC		✓
	1106314	IB													
	1106315	JC15093-5	✓		2		5		IX				MAC		✓
	1106316	JC15093-6	✓		2		5		IX				MAC		✓
	1106317	JC15093-4	✓		2		5		IX				MAC		✓
	1106318	JC15796-3	99488 TCL20		5		5		IX				MAC		✓
	1106319	JC15796-4	✓		1		5		IX				MAC		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Date: 3/11/10

 Print Analyst Name: Tracy Karpinski

 Analyst Signature: TK

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.

see pg. 285

 Columns: 781024 (60m x .25mm x 1.4µm)

 Method V8260C

 Initial Cal. Method M2A7071

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

 Supervisor Signature: WJ Date: 3/11/10

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L	I	S	Status (Data)	Comments	pH* <2
	2A110320	JC15796-1	99488 TLL20	S	25		5		1X				α		✓
	110321	JC15796-2	✓	S	5		1/50		50x				α	781010 10X	✓
	110322	JC15796-1ms	✓	S	13		5		1X				α	25µl of EXT A EXT B EXT C EXT D EXT E Hexane 50mL FV	✓
	110323	JC15796-1msd	✓	S	19		5		1X				α		✓
	110324	IB													
	110325	ecc7071-20											α	10µl of A.B. C. Alcohols / 50mL FV D1 9:30am	
	110326	BFB2											α	10:05am	
	110327	cc7071-50											α	25µl of A.B. C. Alcohols / 50 mL FV D1	
	110328	IB													
	110329	MB2											α		
	110330	JC15762-19	99478 PALGTMB, mTBE, TBA	S	5		5		1X				α		✓
	110331	JC15762-20	✓	S	4		5		1X				α		✓
	110332	JC15762-22	✓	S	2		5		1X				α		✓
	110333	JC15762-23	✓	S	2		5		1X				α		✓
	110334	JC15762-23	✓	S	2		5/50		10X				α	Not needed	✓
	110335	JC15762-21	✓	S	5		5		1X				α		✓
	110336	JC15762-21	✓	S	5		5/50		10X				α	+2A110335	✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

 7.7.2
 7



VOLATILE ANALYSIS LOG

Batch ID: V2A7072

Date: 3/11/11

Print Analyst Name: Tracy Karpinski

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.

see pg. 285

Analyst Signature: TK

Columns: 781024 (60m x 2.5mm x 1.4µm)

Method V82100C

Initial Cal. Method M2A7071

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: W Date: 3/11/11

R	Data File	Sample ID	Test	M T X	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L +	I S	S U	Status (Data)	Comments	pH* < 2
	2A110337	1B													
	110338	ECC7071-50												25µl of A.B.L. Acco. Alcohols/ 50 mL FV DI 3.58 AM	
<u>TK 3/11</u>															

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
 Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.
 All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

289

7.7.2
7

VOLATILE ANALYSIS LOG

Batch ID: V2A7074

Date: 3/14/16

Print Analyst Name: Tracy Karpinski

Standard Data

Standard Data

Lot #	Description	Conc.
V015-2284	33 A	9 100ppm
V015-2284	37 B	7 100ppm
V015-2284	43 C	4 100ppm
V015-2284	32 Acro	13 100ppm
V015-2284	20 Alcohols	7 1000-500ppm

Lot #	Description	Conc.
V015-2284	31 EXIA	11 100ppm
V015-2284	7 EXIB	22 100ppm
V015-2284	38 EXIC	3 100ppm
V015-2258	141 EXTACRO	4 1000ppm
V015-2258	147 EXTADH	4 1000ppm

Analyst Signature: TKeph

Columns: 78624(100m x 25mm x 1.4um)

Method V82VDC

Initial Cal. Method M2A7071

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

210315 pH paper

Supervisor Signature:

Date: 3/14/16

R	Data File	Sample ID	Test	M Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L +	I S	S U	Status (Data)	Comments	pH < 2
	2A1166374	BFB										AC		
	1166375	CL7071-20										AC	10ul of A.B.C. Acro. Alcohols / 50 mL FID	9:17 AM
	1166376	IB												
	1166377	MB1										AC		
	1166378	BS										AC	25ul of EXIA EXIB Acro EXIC EXICDH EXIC Hexane / 50 mL FID	
	1166379	IB												
	1166380	JC15990-3	99500 TL42	G W	3	5		1X				AC	ran based on screen + 5/23/5 272	5
	1166381	JC15990-7	✓	G W	3	5		1X				AC	ran based on history	5
	1166382	JC15990-8	✓	G W	3	5		1X				AC	5x/50x c/d	5
	1166383	IB m 3/14 JC15990-9	✓	G W	3	5		1X				AC	25x c/d	5
	1166384	IB												
	1166385	JC15990-9	99500 TL42	G W	2	2/50		25X				AC	D/L due to non-target	5
	1166386	IB												
	1166387	IB												
R	1166388	JC15796-2	99488 TL20	G W	9	5/50		10X				AC	2A1166321	✓
	1166389	JC15990-9ms	99560 TL42		2	2/50		25x				AC		5
	1166390	JC15990-9md0	✓		2	2/50		25x				AC		5

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
 Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.
 All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

1

7.7.3 7

VOLATILE ANALYSIS LOG

Batch ID: V2A7074

Date: 3/14/16

Print Analyst Name: Tracy Karpinski

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.

see pg. 1

Analyst Signature: TK

Columns: 7802A (100m x 2.5mm x 1.9µm)

Method V8200C

Initial Cal. Method M2A7071

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: WA Date: 3/14/16

R	Data File	Sample ID	Test #	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+S	I+SU	Status (Data)	Comments	pH < 2
	2A1W0391	1B												
	1W0392	1B												
	1W0393	JC15990-11	99560 1742	W	1		5		1X			MAC		✓
	1W0394	JC15990-11	✓	W	3		5		1X			MAC		✓
	1W0395	JC15990-5	✓	W	3		5		1X			MAC		✓
	1W0396	JC15990-4	✓	W	2		5		1X			MAC	ran based on screen 754235273	5
	1W0397	JC15990-6	✓	W	2		5		1X			MAC	ran based on screen 754235275	5
	1W0398	1B												

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
 Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.
 All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-10
 Rev. Date: 1/19/16

3

7.7.3
 7

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-MB1	P103295.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-MB1	P103295.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.72	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-MB1	P103295.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	38% 14-88%
4165-62-2	Phenol-d5	26% 10-110%
118-79-6	2,4,6-Tribromophenol	66% 39-149%
4165-60-0	Nitrobenzene-d5	66% 32-128%
321-60-8	2-Fluorobiphenyl	61% 35-119%
1718-51-0	Terphenyl-d14	70% 10-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

8.1.1
8

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023A-MB1	4M64044.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	40%	14-81%
4165-62-2	Phenol-d5	28%	11-54%
118-79-6	2,4,6-Tribromophenol	75%	35-145%
4165-60-0	Nitrobenzene-d5	79%	24-125%
321-60-8	2-Fluorobiphenyl	57%	19-127%
1718-51-0	Terphenyl-d14	80%	10-119%

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-BS1	P103296.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	31.5	63	48-106
59-50-7	4-Chloro-3-methyl phenol	50	41.0	82	49-113
120-83-2	2,4-Dichlorophenol	50	37.1	74	49-111
105-67-9	2,4-Dimethylphenol	50	37.8	76	42-117
51-28-5	2,4-Dinitrophenol	100	72.7	73	37-132
534-52-1	4,6-Dinitro-o-cresol	50	37.7	75	49-119
95-48-7	2-Methylphenol	50	29.9	60	42-103
	3&4-Methylphenol	50	28.4	57	39-110
88-75-5	2-Nitrophenol	50	36.5	73	49-114
100-02-7	4-Nitrophenol	50	23.2	46	16-95
87-86-5	Pentachlorophenol	50	36.9	74	30-136
108-95-2	Phenol	50	17.1	34	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	39.0	78	47-118
95-95-4	2,4,5-Trichlorophenol	50	38.3	77	55-116
88-06-2	2,4,6-Trichlorophenol	50	37.9	76	56-115
83-32-9	Acenaphthene	50	36.1	72	54-112
208-96-8	Acenaphthylene	50	34.7	69	49-99
98-86-2	Acetophenone	50	33.6	67	52-111
120-12-7	Anthracene	50	40.2	80	58-112
1912-24-9	Atrazine	50	39.5	79	62-134
100-52-7	Benzaldehyde	50	30.2	60	40-129
56-55-3	Benzo(a)anthracene	50	41.9	84	44-120
50-32-8	Benzo(a)pyrene	50	50.4	101	41-127
205-99-2	Benzo(b)fluoranthene	50	49.7	99	41-129
191-24-2	Benzo(g,h,i)perylene	50	47.3	95	34-128
207-08-9	Benzo(k)fluoranthene	50	48.4	97	42-122
101-55-3	4-Bromophenyl phenyl ether	50	39.9	80	54-121
85-68-7	Butyl benzyl phthalate	50	44.2	88	20-143
92-52-4	1,1'-Biphenyl	50	33.2	66	51-106
91-58-7	2-Chloronaphthalene	50	32.3	65	48-104
106-47-8	4-Chloroaniline	50	30.3	61	10-110
86-74-8	Carbazole	50	42.8	86	56-110
105-60-2	Caprolactam	50	12.3	25	10-110
218-01-9	Chrysene	50	39.9	80	45-125
111-91-1	bis(2-Chloroethoxy)methane	50	36.1	72	47-117
111-44-4	bis(2-Chloroethyl)ether	50	33.4	67	48-115

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-BS1	P103296.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	bis(2-Chloroisopropyl)ether	50	27.2	54	44-112
7005-72-3	4-Chlorophenyl phenyl ether	50	36.5	73	50-117
121-14-2	2,4-Dinitrotoluene	50	35.4	71	57-122
606-20-2	2,6-Dinitrotoluene	50	42.2	84	58-122
91-94-1	3,3'-Dichlorobenzidine	100	52.7	53	10-110
123-91-1	1,4-Dioxane	50	15.6	31	10-110
53-70-3	Dibenzo(a,h)anthracene	50	50.5	101	36-130
132-64-9	Dibenzofuran	50	37.8	76	55-108
84-74-2	Di-n-butyl phthalate	50	44.5	89	45-123
117-84-0	Di-n-octyl phthalate	50	44.6	89	37-144
84-66-2	Diethyl phthalate	50	39.8	80	23-130
131-11-3	Dimethyl phthalate	50	38.6	77	10-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	36.2	72	36-138
206-44-0	Fluoranthene	50	42.4	85	58-116
86-73-7	Fluorene	50	37.9	76	57-113
118-74-1	Hexachlorobenzene	50	38.0	76	49-122
87-68-3	Hexachlorobutadiene	50	26.2	52	24-112
77-47-4	Hexachlorocyclopentadiene	100	50.4	50	14-119
67-72-1	Hexachloroethane	50	23.1	46	31-107
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.0	102	34-128
78-59-1	Isophorone	50	40.0	80	52-119
90-12-0	1-Methylnaphthalene	50	33.7	67	46-103
91-57-6	2-Methylnaphthalene	50	34.5	69	45-107
88-74-4	2-Nitroaniline	50	44.4	89	51-127
99-09-2	3-Nitroaniline	50	36.5	73	10-110
100-01-6	4-Nitroaniline	50	42.8	86	50-112
91-20-3	Naphthalene	50	32.4	65	40-102
98-95-3	Nitrobenzene	50	34.7	69	44-116
621-64-7	N-Nitroso-di-n-propylamine	50	34.0	68	49-117
86-30-6	N-Nitrosodiphenylamine	50	39.7	79	51-113
85-01-8	Phenanthrene	50	40.0	80	56-111
129-00-0	Pyrene	50	41.7	83	47-120
95-94-3	1,2,4,5-Tetrachlorobenzene	50	28.6	57	36-114

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-BS1	P103296.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	43%	14-88%
4165-62-2	Phenol-d5	31%	10-110%
118-79-6	2,4,6-Tribromophenol	76%	39-149%
4165-60-0	Nitrobenzene-d5	70%	32-128%
321-60-8	2-Fluorobiphenyl	69%	35-119%
1718-51-0	Terphenyl-d14	80%	10-126%

8.2.1
8

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023A-BS12	4M64045.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	1	0.666	67	40-119
123-91-1	1,4-Dioxane	1	0.406	41	20-160

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	39%	14-81%
4165-62-2	Phenol-d5	29%	11-54%
118-79-6	2,4,6-Tribromophenol	81%	35-145%
4165-60-0	Nitrobenzene-d5	71%	24-125%
321-60-8	2-Fluorobiphenyl	51%	19-127%
1718-51-0	Terphenyl-d14	87%	10-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-MS	P103315.D	1	03/14/16	LK	03/12/16	OP92023	EP4538
OP92023-MSD	P103316.D	1	03/14/16	LK	03/12/16	OP92023	EP4538
JC15796-1	P103301.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	JC15796-1	Spike	MS	MS	Spike	MSD	MSD	RPD	Limits
		ug/l	Q	ug/l	ug/l	%	ug/l	ug/l		%
95-57-8	2-Chlorophenol	ND	100	71.7	72	100	68.2	68	5	49-110/20
59-50-7	4-Chloro-3-methyl phenol	ND	100	91.3	91	100	90.8	91	1	44-121/18
120-83-2	2,4-Dichlorophenol	ND	100	84.8	85	100	84.0	84	1	42-120/19
105-67-9	2,4-Dimethylphenol	ND	100	92.7	93	100	91.5	92	1	33-132/23
51-28-5	2,4-Dinitrophenol	ND	200	177	89	200	178	89	1	21-145/26
534-52-1	4,6-Dinitro-o-cresol	ND	100	81.2	81	100	82.4	82	1	25-134/27
95-48-7	2-Methylphenol	ND	100	76.5	77	100	72.8	73	5	47-112/18
	3&4-Methylphenol	ND	100	76.8	77	100	74.1	74	4	44-113/19
88-75-5	2-Nitrophenol	ND	100	75.0	75	100	68.8	69	9	45-118/20
100-02-7	4-Nitrophenol	ND	100	77.0	77	100	73.4	73	5	23-144/28
87-86-5	Pentachlorophenol	ND	100	87.6	88	100	90.2	90	3	25-151/25
108-95-2	Phenol	ND	100	56.7	57	100	52.1	52	8	22-100/22
58-90-2	2,3,4,6-Tetrachlorophenol	ND	100	88.1	88	100	88.4	88	0	44-122/21
95-95-4	2,4,5-Trichlorophenol	ND	100	85.6	86	100	86.3	86	1	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND	100	87.0	87	100	86.9	87	0	53-120/21
83-32-9	Acenaphthene	ND	100	75.0	75	100	74.2	74	1	52-120/23
208-96-8	Acenaphthylene	ND	100	72.7	73	100	72.6	73	0	50-101/22
98-86-2	Acetophenone	ND	100	69.0	69	100	62.9	63	9	31-141/23
120-12-7	Anthracene	16.7	100	97.6	81	100	99.9	83	2	54-117/22
1912-24-9	Atrazine	ND	100	81.3	81	100	79.2	79	3	42-152/23
100-52-7	Benzaldehyde	ND	100	62.9	63	100	55.4	55	13	10-164/30
56-55-3	Benzo(a)anthracene	ND	100	86.2	86	100	87.9	88	2	40-123/24
50-32-8	Benzo(a)pyrene	ND	100	95.3	95	100	97.9	98	3	41-127/25
205-99-2	Benzo(b)fluoranthene	ND	100	91.9	92	100	94.1	94	2	39-127/27
191-24-2	Benzo(g,h,i)perylene	ND	100	87.3	87	100	90.5	91	4	34-128/28
207-08-9	Benzo(k)fluoranthene	ND	100	92.0	92	100	93.2	93	1	39-122/26
101-55-3	4-Bromophenyl phenyl ether	ND	100	82.2	82	100	84.5	85	3	51-124/23
85-68-7	Butyl benzyl phthalate	ND	100	92.1	92	100	93.0	93	1	21-146/28
92-52-4	1,1'-Biphenyl	ND	100	69.9	70	100	67.4	67	4	27-142/23
91-58-7	2-Chloronaphthalene	ND	100	67.0	67	100	65.0	65	3	51-109/23
106-47-8	4-Chloroaniline	ND	100	69.0	69	100	67.4	67	2	10-110/55
86-74-8	Carbazole	ND	100	87.7	88	100	88.3	88	1	52-116/22
105-60-2	Caprolactam	ND	100	50.9	51	100	46.5	47	9	10-106/34
218-01-9	Chrysene	ND	100	82.5	83	100	82.7	83	0	41-128/24
111-91-1	bis(2-Chloroethoxy)methane	ND	100	71.9	72	100	65.5	66	9	46-120/24
111-44-4	bis(2-Chloroethyl)ether	ND	100	67.6	68	100	59.5	60	13	42-123/28

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-MS	P103315.D	1	03/14/16	LK	03/12/16	OP92023	EP4538
OP92023-MSD	P103316.D	1	03/14/16	LK	03/12/16	OP92023	EP4538
JC15796-1	P103301.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	JC15796-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-60-1	bis(2-Chloroisopropyl)ether	ND	100	42.4	42	100	38.0	38* a	11	41-117/25
7005-72-3	4-Chlorophenyl phenyl ether	ND	100	75.9	76	100	75.6	76	0	48-121/21
121-14-2	2,4-Dinitrotoluene	ND	100	76.5	77	100	76.0	76	1	54-123/27
606-20-2	2,6-Dinitrotoluene	ND	100	89.2	89	100	89.5	90	0	55-125/26
91-94-1	3,3'-Dichlorobenzidine	ND	200	131	66	200	134	67	2	10-107/47
123-91-1	1,4-Dioxane	11.6	100	50.5	39	100	44.6	33	12	10-119/31
53-70-3	Dibenzo(a,h)anthracene	ND	100	93.2	93	100	96.3	96	3	35-130/27
132-64-9	Dibenzofuran	ND	100	78.5	79	100	77.9	78	1	53-112/22
84-74-2	Di-n-butyl phthalate	ND	100	91.8	92	100	92.3	92	1	38-129/23
117-84-0	Di-n-octyl phthalate	ND	100	83.9	84	100	85.5	86	2	35-145/26
84-66-2	Diethyl phthalate	ND	100	81.4	81	100	81.2	81	0	16-136/30
131-11-3	Dimethyl phthalate	ND	100	80.2	80	100	80.0	80	0	10-143/39
117-81-7	bis(2-Ethylhexyl)phthalate	ND	100	76.2	76	100	78.1	78	2	34-141/28
206-44-0	Fluoranthene	ND	100	87.1	87	100	87.6	88	1	47-123/24
86-73-7	Fluorene	ND	100	80.0	80	100	79.1	79	1	56-117/22
118-74-1	Hexachlorobenzene	ND	100	78.8	79	100	77.9	78	1	46-125/24
87-68-3	Hexachlorobutadiene	ND	100	55.9	56	100	52.5	53	6	26-121/24
77-47-4	Hexachlorocyclopentadiene	ND	200	93.9	47	200	83.7	42	11	10-133/31
67-72-1	Hexachloroethane	ND	100	53.2	53	100	46.6	47	13	35-111/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	93.8	94	100	97.0	97	3	32-130/30
78-59-1	Isophorone	ND	100	78.4	78	100	72.7	73	8	47-126/23
90-12-0	1-Methylnaphthalene	ND	100	69.6	70	100	65.8	66	6	34-124/25
91-57-6	2-Methylnaphthalene	ND	100	70.7	71	100	65.6	66	7	34-123/24
88-74-4	2-Nitroaniline	ND	100	94.7	95	100	95.5	96	1	46-137/23
99-09-2	3-Nitroaniline	ND	100	77.2	77	100	80.3	80	4	10-110/50
100-01-6	4-Nitroaniline	ND	100	87.7	88	100	89.1	89	2	38-118/25
91-20-3	Naphthalene	ND	100	65.4	65	100	59.7	60	9	30-121/23
98-95-3	Nitrobenzene	ND	100	67.8	68	100	62.4	62	8	35-130/25
621-64-7	N-Nitroso-di-n-propylamine	ND	100	68.5	69	100	62.9	63	9	45-123/22
86-30-6	N-Nitrosodiphenylamine	ND	100	83.3	83	100	83.8	84	1	46-123/24
85-01-8	Phenanthrene	ND	100	81.5	82	100	81.1	81	0	48-121/23
129-00-0	Pyrene	ND	100	84.9	85	100	86.0	86	1	43-124/26
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	100	59.7	60	100	57.4	57	4	25-142/24

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023-MS	P103315.D	1	03/14/16	LK	03/12/16	OP92023	EP4538
OP92023-MSD	P103316.D	1	03/14/16	LK	03/12/16	OP92023	EP4538
JC15796-1	P103301.D	1	03/14/16	LK	03/12/16	OP92023	EP4538

The QC reported here applies to the following samples:

Method: SW846 8270D

JC15796-1, JC15796-2, JC15796-3

CAS No.	Surrogate Recoveries	MS	MSD	JC15796-1	Limits
367-12-4	2-Fluorophenol	60%	55%	42%	14-88%
4165-62-2	Phenol-d5	54%	50%	30%	10-110%
118-79-6	2,4,6-Tribromophenol	88%	91%	81%	39-149%
4165-60-0	Nitrobenzene-d5	69%	64%	66%	32-128%
321-60-8	2-Fluorobiphenyl	71%	69%	65%	35-119%
1718-51-0	Terphenyl-d14	80%	83%	64%	10-126%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

8.3.1
8

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92023A-MS	4M64050.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839
OP92023A-MSD	4M64051.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839
JC15796-1	4M64056.D	1	03/14/16	LK	03/12/16	OP92023A	E4M2839

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	JC15796-1 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
91-20-3	Naphthalene	ND	2	1.62	81	2	1.67	84	3	23-140/36
123-91-1	1,4-Dioxane	13.9	E 2	19.3	270* a	2	20.8	345* a	7	20-160/30

CAS No.	Surrogate Recoveries	MS	MSD	JC15796-1	Limits
367-12-4	2-Fluorophenol	62%	65%	43%	14-81%
4165-62-2	Phenol-d5	57%* b	61%* b	32%	11-54%
118-79-6	2,4,6-Tribromophenol	107%	113%	112%	35-145%
4165-60-0	Nitrobenzene-d5	83%	87%	78%	24-125%
321-60-8	2-Fluorobiphenyl	64%	71%	66%	19-127%
1718-51-0	Terphenyl-d14	80%	83%	67%	10-119%

- (a) Outside control limits due to high level in sample relative to spike amount.
- (b) Outside of control limits, but within reasonable method recovery limits.

* = Outside of Control Limits.



Instrument Performance Check (DFTPP)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: E4M2828-DFTPP Injection Date: 02/29/16
 Lab File ID: 4M63800.D Injection Time: 15:44
 Instrument ID: GCMS4M

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	194405	32.8	Pass
68	Less than 2.0% of mass 69	2903	0.49 (1.21) ^a	Pass
69	Mass 69 relative abundance	240415	40.5	Pass
70	Less than 2.0% of mass 69	1258	0.21 (0.52) ^a	Pass
127	40.0 - 60.0% of mass 198	300819	50.7	Pass
197	Less than 1.0% of mass 198	2515	0.42	Pass
198	Base peak, 100% relative abundance	593003	100.0	Pass
199	5.0 - 9.0% of mass 198	39222	6.61	Pass
275	10.0 - 30.0% of mass 198	119693	20.2	Pass
365	1.0 - 100.0% of mass 198	17294	2.92	Pass
441	Present, but less than mass 443	73077	12.3 (78.9) ^b	Pass
442	40.0 - 100.0% of mass 198	502827	84.8	Pass
443	17.0 - 23.0% of mass 442	92581	15.6 (18.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M2828-ICC2828	4M63805.D	02/29/16	16:57	01:13	Initial cal 1
E4M2828-IC2828	4M63806.D	02/29/16	17:30	01:46	Initial cal 0.5
E4M2828-IC2828	4M63807.D	02/29/16	18:03	02:19	Initial cal 0.2
E4M2828-IC2828	4M63808.D	02/29/16	18:35	02:51	Initial cal 0.1
E4M2828-IC2828	4M63809.D	02/29/16	19:06	03:22	Initial cal 0.05
E4M2828-IC2828	4M63810.D	02/29/16	19:38	03:54	Initial cal 0.02
E4M2828-IC2828	4M63811.D	02/29/16	20:10	04:26	Initial cal 0.01
E4M2828-IC2828	4M63812.D	02/29/16	20:41	04:57	Initial cal 5.0
E4M2828-IC2828	4M63813.D	02/29/16	21:12	05:28	Initial cal 2.5
E4M2828-ICV2828	4M63814.D	02/29/16	21:43	05:59	Initial cal verification 1.0
E4M2828-ICV2828	4M63815.D	02/29/16	22:14	06:30	Initial cal verification 1.0
E4M2828-ICV2828	4M63816.D	02/29/16	22:45	07:01	Initial cal verification 1.0

Instrument Performance Check (DFTPP)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	E4M2839-DFTPP	Injection Date:	03/14/16
Lab File ID:	4M64040.D	Injection Time:	09:27
Instrument ID:	GCMS4M		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	197374	36.8	Pass
68	Less than 2.0% of mass 69	3348	0.62 (1.43) ^a	Pass
69	Mass 69 relative abundance	234363	43.7	Pass
70	Less than 2.0% of mass 69	621	0.12 (0.26) ^a	Pass
127	40.0 - 60.0% of mass 198	285539	53.3	Pass
197	Less than 1.0% of mass 198	1962	0.37	Pass
198	Base peak, 100% relative abundance	535936	100.0	Pass
199	5.0 - 9.0% of mass 198	35372	6.60	Pass
275	10.0 - 30.0% of mass 198	103253	19.3	Pass
365	1.0 - 100.0% of mass 198	16128	3.01	Pass
441	Present, but less than mass 443	63608	11.9 (78.6) ^b	Pass
442	40.0 - 100.0% of mass 198	417280	77.9	Pass
443	17.0 - 23.0% of mass 442	80936	15.1 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M2839-CC2828	4M64041.D	03/14/16	09:37	00:10	Continuing cal .5
OP91982A-MB1	4M64042.D	03/14/16	10:07	00:40	Method Blank
OP91982A-BS12	4M64043.D	03/14/16	10:37	01:10	Blank Spike
OP92023A-MB1	4M64044.D	03/14/16	11:06	01:39	Method Blank
OP92023A-BS12	4M64045.D	03/14/16	11:36	02:09	Blank Spike
OP91858A-MB1	4M64046.D	03/14/16	12:06	02:39	Method Blank
OP91982A-MS	4M64048.D	03/14/16	13:06	03:39	Matrix Spike
OP91982A-MSD	4M64049.D	03/14/16	13:35	04:08	Matrix Spike Duplicate
OP92023A-MS	4M64050.D	03/14/16	14:05	04:38	Matrix Spike
OP92023A-MSD	4M64051.D	03/14/16	14:35	05:08	Matrix Spike Duplicate
ZZZZZZ	4M64052.D	03/14/16	15:05	05:38	(unrelated sample)
ZZZZZZ	4M64053.D	03/14/16	15:35	06:08	(unrelated sample)
ZZZZZZ	4M64054.D	03/14/16	16:05	06:38	(unrelated sample)
ZZZZZZ	4M64055.D	03/14/16	16:35	07:08	(unrelated sample)
JC15796-1	4M64056.D	03/14/16	17:04	07:37	S-29R
JC15796-2	4M64057.D	03/14/16	17:34	08:07	S-31R(2)
JC15796-3	4M64058.D	03/14/16	18:04	08:37	EB030716
ZZZZZZ	4M64059.D	03/14/16	18:34	09:07	(unrelated sample)
ZZZZZZ	4M64060.D	03/14/16	19:04	09:37	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample:	E4M2839-DFTPP	Injection Date:	03/14/16
Lab File ID:	4M64040.D	Injection Time:	09:27
Instrument ID:	GCMS4M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
<u>ZZZZZZ</u>	4M64061.D	03/14/16	19:33	10:06	(unrelated sample)
<u>ZZZZZZ</u>	4M64062.D	03/14/16	20:03	10:36	(unrelated sample)
<u>ZZZZZZ</u>	4M64063.D	03/14/16	20:33	11:06	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	EP4514-DFTPP	Injection Date:	02/24/16
Lab File ID:	P102786.D	Injection Time:	01:55
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	18668	34.6	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	23706	44.0	Pass
70	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
127	40.0 - 60.0% of mass 198	30563	56.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	53930	100.0	Pass
199	5.0 - 9.0% of mass 198	3929	7.29	Pass
275	10.0 - 30.0% of mass 198	11130	20.6	Pass
365	1.0 - 100.0% of mass 198	1487	2.76	Pass
441	Present, but less than mass 443	6594	12.2 (77.6) ^b	Pass
442	40.0 - 100.0% of mass 198	42661	79.1	Pass
443	17.0 - 23.0% of mass 442	8492	15.7 (19.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP4514-IC4514	P102787.D	02/24/16	02:07	00:12	Initial cal 100
EP4514-IC4514	P102788.D	02/24/16	02:36	00:41	Initial cal 80
EP4514-IC4514	P102789.D	02/24/16	03:06	01:11	Initial cal 10
EP4514-IC4514	P102790.D	02/24/16	03:35	01:40	Initial cal 5
EP4514-IC4514	P102791.D	02/24/16	04:05	02:10	Initial cal 2
EP4514-IC4514	P102792.D	02/24/16	04:34	02:39	Initial cal 1
EP4514-IC4514	P102793.D	02/24/16	05:04	03:09	Initial cal 25
EP4514-ICC4514	P102794.D	02/24/16	05:33	03:38	Initial cal 50
EP4514-ICV4513	P102795.D	02/24/16	06:02	04:07	Initial cal verification 50
EP4514-ICV4513	P102796.D	02/24/16	06:32	04:37	Initial cal verification 50
EP4514-ICV4513	P102797.D	02/24/16	07:01	05:06	Initial cal verification 50
EP4514-ICV4514	P102798A.D	02/24/16	07:31	05:36	Initial cal verification 50
EP4514-ICV4513	P102798.D	02/24/16	07:31	05:36	Initial cal verification 50
EP4514-ICV4513	P102799.D	02/24/16	08:00	06:05	Initial cal verification 50
EP4514-ICV4514	P102799A.D	02/24/16	08:00	06:05	Initial cal verification 50
EP4514-ICV4514	P102800.D	02/24/16	08:29	06:34	Initial cal verification 50
EP4514-ICV4514	P102801A.D	02/24/16	08:58	07:03	Initial cal verification 50
EP4514-ICV4513	P102801.D	02/24/16	08:58	07:03	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	EP4515-DFTPP	Injection Date:	02/24/16
Lab File ID:	P102802.D	Injection Time:	10:01
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	22621	37.0	Pass
68	Less than 2.0% of mass 69	213	0.35 (0.76) ^a	Pass
69	Mass 69 relative abundance	27911	45.6	Pass
70	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
127	40.0 - 60.0% of mass 198	35722	58.4	Pass
197	Less than 1.0% of mass 198	290	0.47	Pass
198	Base peak, 100% relative abundance	61170	100.0	Pass
199	5.0 - 9.0% of mass 198	4302	7.03	Pass
275	10.0 - 30.0% of mass 198	12439	20.3	Pass
365	1.0 - 100.0% of mass 198	1669	2.73	Pass
441	Present, but less than mass 443	6795	11.1 (79.1) ^b	Pass
442	40.0 - 100.0% of mass 198	44310	72.4	Pass
443	17.0 - 23.0% of mass 442	8589	14.0 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP4515-IC4515	P102803.D	02/24/16	10:15	00:14	Initial cal 100
EP4515-IC4515	P102804.D	02/24/16	10:44	00:43	Initial cal 80
EP4515-ICC4515	P102805.D	02/24/16	11:13	01:12	Initial cal 50
EP4515-IC4515	P102806.D	02/24/16	11:43	01:42	Initial cal 25
EP4515-IC4515	P102807.D	02/24/16	12:12	02:11	Initial cal 10
EP4515-IC4515	P102808.D	02/24/16	12:42	02:41	Initial cal 5
EP4515-IC4515	P102809.D	02/24/16	13:11	03:10	Initial cal 2
EP4515-IC4515	P102810.D	02/24/16	13:41	03:40	Initial cal 1
EP4515-ICV4515	P102811.D	02/24/16	14:11	04:10	Initial cal verification 50
EP4515-ICV4515	P102812.D	02/24/16	14:41	04:40	Initial cal verification 50
EP4515-ICV4515	P102813.D	02/24/16	15:10	05:09	Initial cal verification 50
EP4515-ICV4515	P102814.D	02/24/16	15:40	05:39	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	EP4524-DFTPP	Injection Date:	03/02/16
Lab File ID:	P103010.D	Injection Time:	16:56
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	29961	34.4	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	38523	44.2	Pass
70	Less than 2.0% of mass 69	119	0.14 (0.31) ^a	Pass
127	40.0 - 60.0% of mass 198	48031	55.2	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	87088	100.0	Pass
199	5.0 - 9.0% of mass 198	5993	6.88	Pass
275	10.0 - 30.0% of mass 198	19109	21.9	Pass
365	1.0 - 100.0% of mass 198	2328	2.67	Pass
441	Present, but less than mass 443	9869	11.3 (79.2) ^b	Pass
442	40.0 - 100.0% of mass 198	65456	75.2	Pass
443	17.0 - 23.0% of mass 442	12454	14.3 (19.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP4524-IC4524	P103011.D	03/02/16	17:10	00:14	Initial cal 100
EP4524-IC4524	P103012.D	03/02/16	17:40	00:44	Initial cal 80
EP4524-IC4524	P103013.D	03/02/16	18:09	01:13	Initial cal 10
EP4524-IC4524	P103014.D	03/02/16	18:39	01:43	Initial cal 5
EP4524-IC4524	P103015.D	03/02/16	19:08	02:12	Initial cal 2
EP4524-IC4524	P103016.D	03/02/16	19:37	02:41	Initial cal 1
EP4524-ICC4524	P103017.D	03/02/16	20:06	03:10	Initial cal 50
EP4524-IC4524	P103018.D	03/02/16	20:36	03:40	Initial cal 25
EP4524-ICV4524	P103019.D	03/02/16	21:05	04:09	Initial cal verification 50
EP4524-ICV4524	P103020.D	03/02/16	21:34	04:38	Initial cal verification 50
EP4524-ICV4524	P103021.D	03/02/16	22:03	05:07	Initial cal verification 50
EP4524-ICV4524	P103022.D	03/02/16	22:32	05:36	Initial cal verification 50
EP4524-ICV4524	P103023.D	03/02/16	23:02	06:06	Initial cal verification 50
EP4524-ICV4524	P103024.D	03/02/16	23:31	06:35	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	EP4538-DFTPP	Injection Date:	03/14/16
Lab File ID:	P103291.D	Injection Time:	08:33
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	42091	37.9	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	54610	49.2	Pass
70	Less than 2.0% of mass 69	164	0.15 (0.30) ^a	Pass
127	40.0 - 60.0% of mass 198	63407	57.1	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	111074	100.0	Pass
199	5.0 - 9.0% of mass 198	7347	6.61	Pass
275	10.0 - 30.0% of mass 198	24034	21.6	Pass
365	1.0 - 100.0% of mass 198	3093	2.78	Pass
441	Present, but less than mass 443	13956	12.6 (75.8) ^b	Pass
442	40.0 - 100.0% of mass 198	90253	81.3	Pass
443	17.0 - 23.0% of mass 442	18404	16.6 (20.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP4538-CC4524	P103292.D	03/14/16	08:45	00:12	Continuing cal 25
EP4538-CC4514	P103293.D	03/14/16	09:14	00:41	Continuing cal 25
EP4538-CC4515	P103294.D	03/14/16	09:45	01:12	Continuing cal 25
OP92023-MB1	P103295.D	03/14/16	10:13	01:40	Method Blank
OP92023-BS1	P103296.D	03/14/16	10:42	02:09	Blank Spike
OP92023-BS13	P103297.D	03/14/16	11:10	02:37	Blank Spike
ZZZZZZ	P103298.D	03/14/16	11:39	03:06	(unrelated sample)
OP91858-MS	P103317.D	03/14/16	12:07	03:34	Matrix Spike
OP91858-MSD	P103318.D	03/14/16	12:36	04:03	Matrix Spike Duplicate
JC15451-2	P103319.D	03/14/16	13:04	04:31	(used for QC only; not part of job JC15796)
ZZZZZZ	P103299.D	03/14/16	13:33	05:00	(unrelated sample)
ZZZZZZ	P103300.D	03/14/16	14:30	05:57	(unrelated sample)
JC15796-1	P103301.D	03/14/16	14:58	06:25	S-29R
JC15796-2	P103302.D	03/14/16	15:27	06:54	S-31R(2)
JC15796-3	P103303.D	03/14/16	15:55	07:22	EB030716
ZZZZZZ	P103304.D	03/14/16	16:24	07:51	(unrelated sample)
ZZZZZZ	P103305.D	03/14/16	16:52	08:19	(unrelated sample)
ZZZZZZ	P103306.D	03/14/16	17:21	08:48	(unrelated sample)
ZZZZZZ	P103307.D	03/14/16	17:49	09:16	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample:	EP4538-DFTPP	Injection Date:	03/14/16
Lab File ID:	P103291.D	Injection Time:	08:33
Instrument ID:	GCMSP		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
<i>ZZZZZZ</i>	P103308.D	03/14/16	18:18	09:45	(unrelated sample)
<i>ZZZZZZ</i>	P103309.D	03/14/16	18:46	10:13	(unrelated sample)
<i>ZZZZZZ</i>	P103310.D	03/14/16	19:15	10:42	(unrelated sample)
OP92023-MS	P103315.D	03/14/16	19:43	11:10	Matrix Spike
OP92023-MSD	P103316.D	03/14/16	20:12	11:39	Matrix Spike Duplicate

8.4.6
8

Semivolatiles Internal Standard Area Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	E4M2839-CC2828	Injection Date:	03/14/16
Lab File ID:	4M64041.D	Injection Time:	09:37
Instrument ID:	GCMS4M	Method:	SW846 8270D BY SIM

	IS 1		IS 2		IS 3		IS 4	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	365894	9.90	659473	12.87	1066583	17.05	813611	21.63
Upper Limit ^a	731788	10.40	1318946	13.37	2133166	17.55	1627222	22.13
Lower Limit ^b	182947	9.40	329737	12.37	533292	16.55	406806	21.13

Lab Sample ID	IS 1		IS 2		IS 3		IS 4	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP91982A-MB1	369868	9.90	712908	12.87	1111924	17.05	824096	21.63
OP91982A-BS12	375286	9.90	684940	12.87	1119776	17.05	830874	21.63
OP92023A-MB1	387406	9.90	755196	12.87	1217823	17.05	937864	21.63
OP92023A-BS12	322837	9.90	600206	12.87	970599	17.05	759823	21.63
OP91858A-MB1	343001	9.90	631746	12.87	1055702	17.05	797989	21.63
OP91982A-MS	361834	9.90	689855	12.87	1066235	17.07	810349	21.63
OP91982A-MSD	389852	9.90	729498	12.87	1248289	17.07	880523	21.63
OP92023A-MS	339584	9.90	614665	12.87	1078011	17.05	768499	21.63
OP92023A-MSD	332915	9.92	600065	12.87	1075375	17.05	763935	21.63
ZZZZZZ	368623	9.92	764662	12.87	1149221	17.05	856742	21.64
ZZZZZZ	346561	9.92	657946	12.89	1137777	17.05	810952	21.63
ZZZZZZ	336328	9.92	630948	12.89	1082689	17.05	764967	21.63
ZZZZZZ	308500	9.92	588501	12.89	1005167	17.05	731989	21.64
JC15796-1	381831	9.92	721464	12.89	1229889	17.05	891779	21.64
JC15796-2	350721	9.92	655610	12.89	1118656	17.05	787774	21.64
JC15796-3	318626	9.92	595721	12.89	955992	17.05	708860	21.64
ZZZZZZ	361130	9.92	671868	12.89	1151741	17.05	845461	21.64
ZZZZZZ	360639	9.92	678160	12.89	1130927	17.05	829683	21.64
ZZZZZZ	351466	9.92	681469	12.89	1057268	17.05	806062	21.64
ZZZZZZ	363430	9.92	685091	12.89	1136404	17.05	859056	21.64
ZZZZZZ	363500	9.92	688727	12.89	1147275	17.05	851641	21.64

IS 1 = 1-Methylnaphthalene-d10
 IS 2 = Fluorene-d10
 IS 3 = Fluoranthene-d10
 IS 4 = Benzo(a)pyrene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.1
 8

Semivolatiles Internal Standard Area Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	EP4538-CC4524	Injection Date:	03/14/16
Lab File ID:	P103292.D	Injection Time:	08:45
Instrument ID:	GCMSP	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	235362	4.22	801388	5.97	467059	8.68	686475	11.04	609333	15.72	573496	18.27
Upper Limit ^a	470724	4.72	1602776	6.47	934118	9.18	1372950	11.54	1218666	16.22	1146992	18.77
Lower Limit ^b	117681	3.72	400694	5.47	233530	8.18	343238	10.54	304667	15.22	286748	17.77

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP92023-MB1	192602	4.22	677103	5.96	402153	8.67	607805	11.03	561765	15.72	419524	18.27
OP92023-BS1	161308	4.22	549593	5.96	327326	8.67	484172	11.03	443040	15.72	350242	18.27
OP92023-BS13	159503	4.22	555853	5.96	333505	8.67	490391	11.03	464562	15.71	353754	18.26
ZZZZZZ	193026	4.22	684991	5.96	410870	8.67	635120	11.03	620138	15.72	500581	18.27
OP91858-MS	151272	4.22	527501	5.96	313130	8.67	459499	11.03	415152	15.72	391851	18.27
OP91858-MSD	165658	4.22	581852	5.96	340938	8.67	501316	11.03	444734	15.72	422041	18.27
JC15451-2	152826	4.22	529560	5.96	309958	8.67	474129	11.03	431383	15.71	372016	18.26
ZZZZZZ	186481	4.22	645857	5.96	384574	8.67	587636	11.03	546139	15.71	430840	18.26
ZZZZZZ	158142	4.22	546028	5.96	317003	8.67	486012	11.03	443818	15.71	364981	18.26
JC15796-1	190604	4.22	695429	5.96	404260	8.67	621699	11.03	587516	15.71	475393	18.27
JC15796-2 ^c	179830	4.22	645963	5.96	380376	8.67	576917	11.03	547524	15.72	437856	18.27
JC15796-3	172859	4.22	599379	5.96	343646	8.67	520071	11.03	477830	15.71	389705	18.26
ZZZZZZ	184533	4.22	619186	5.96	352758	8.67	530172	11.03	485171	15.71	405753	18.26
ZZZZZZ	194086	4.22	659227	5.96	385332	8.67	582554	11.03	552417	15.71	462692	18.27
ZZZZZZ	189541	4.22	638197	5.96	341827	8.67	503878	11.03	492694	15.71	421044	18.26
ZZZZZZ	200146	4.22	689446	5.96	406360	8.67	614531	11.03	573743	15.72	466441	18.27
ZZZZZZ	209887	4.22	718401	5.96	420034	8.67	636112	11.03	595956	15.72	480340	18.27
ZZZZZZ	202847	4.22	696471	5.96	411698	8.67	617174	11.03	578910	15.71	473897	18.27
ZZZZZZ	197225	4.22	650090	5.96	392186	8.68	572542	11.04	614289	15.72	513675	18.27
OP92023-MS	173099	4.22	605621	5.96	355829	8.67	538247	11.03	495500	15.72	432420	18.27
OP92023-MSD	189866	4.22	657489	5.96	382282	8.67	569767	11.03	512693	15.72	442937	18.27

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
- (c) There is no sample left to reextract for low surrogates.

8.5.2
8

Semivolatle Surrogate Recovery Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Method: SW846 8270D	Matrix: AQ
---------------------	------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC15796-1	P103301.D	42	30	81	66	65	64
JC15796-2	P103302.D	11* a	31	87	65	68	70
JC15796-3	P103303.D	37	27	70	63	62	70
OP92023-BS1	P103296.D	43	31	76	70	69	80
OP92023-MB1	P103295.D	38	26	66	66	61	70
OP92023-MS	P103315.D	60	54	88	69	71	80
OP92023-MSD	P103316.D	55	50	91	64	69	83

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

(a) There is no sample left to reextract for low surrogates.

8.6.1
8

Semivolatiles Surrogate Recovery Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Method: SW846 8270D BY SIM	Matrix: AQ
----------------------------	------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC15796-1	4M64056.D	43	32	112	78	66	67
JC15796-2	4M64057.D				79	70	74
JC15796-3	4M64058.D				77	61	81
OP92023A-BS12	4M64045.D	39	29	81	71	51	87
OP92023A-MB1	4M64044.D	40	28	75	79	57	80
OP92023A-MS	4M64050.D	62	57* a	107	83	64	80
OP92023A-MSD	4M64051.D	65	61* a	113	87	71	83

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-81%
S2 = Phenol-d5	11-54%
S3 = 2,4,6-Tribromophenol	35-145%
S4 = Nitrobenzene-d5	24-125%
S5 = 2-Fluorobiphenyl	19-127%
S6 = Terphenyl-d14	10-119%

(a) Outside of control limits, but within reasonable method recovery limits.

8.6.2
8

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: E4M2828-ICC2828
 Lab FileID: 4M63805.D

Response Factor Report GCMS4M

Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
 Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 Last Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration

Calibration Files

0.05=4m63809.D .2 =4m63807.D 2.5 =4m63813.D .02 =4m63810.D
 .1 =4m63808.D 1 =4m63805.D .01 =4m63811.D .5 =4m63806.D
 5 =4m63812.D = = =

Compound

Compound	0.05	.2	2.5	.02	.1	1	.01	.5	5	Avg	%RSD
1) I 1-Methylnaphthalene-d	-----ISTD-----										
2) 2-Fluorophenol	0.939	0.952	0.861	1.171	0.881	0.764	0.772	0.807	0.893	14.81	
3) Phenol-d5	1.482	1.516	1.247	1.781	1.399	1.238	1.235	0.985	1.360	17.63	
4) Phenol	1.399	1.640	1.496	1.378	1.395	1.309	1.323	1.448	1.423	7.48	
5) bis(2-Chloroethyl)ether	1.021	1.192	1.056	1.101	1.021	0.938	1.132	0.955	1.072	1.054	7.73
6) Nitrobenzene-d5	1.001	1.197	1.070	0.996	1.012	0.979	0.973	0.846	1.009	9.77	
7) Naphthalene	3.489	4.006	3.467	3.615	3.476	3.108	3.611	3.178	3.430	3.487	7.47
8) Hexachlorobutadiene	0.536	0.602	0.528	0.549	0.518	0.479	0.541	0.489	0.527	0.530	6.72
9) 2-Methylnaphthalene	1.243	1.439	1.268	1.322	1.236	1.181	1.412	1.196	1.284	1.287	6.97
10) Hexachlorocyclopentadiene	0.225	0.330	0.149	0.265	0.212	0.347	0.255	29.41			
---- Quadratic regression ---- Coefficient = 0.9991											
Response Ratio = -0.01623 + 0.31497 *A + 0.01559 *A^2											
11) 2-Fluorobiphenyl	1.650	1.954	1.361	1.658	1.657	1.736	1.699	1.674	10.41		
12) I Fluorene-d10	-----ISTD-----										
13) Acenaphthylene	1.297	1.509	1.412	1.350	1.277	1.208	1.319	1.164	1.174	1.301	8.69
14) Acenaphthene	0.738	0.867	0.730	0.774	0.747	0.673	0.770	0.678	0.619	0.733	9.76
15) Dibenzofuran	1.978	2.348	2.027	2.060	1.978	1.780	2.056	1.739	1.680	1.961	10.42
16) Fluorene	1.185	1.458	1.205	1.196	1.198	1.203	1.230	1.258	1.070	1.223	8.36
17) 2,4,6-Tribromophenol	0.173	0.183	0.193	0.161	0.165	0.164	0.203	0.178	9.13		
18) Hexachlorobenzene	0.468	0.543	0.430	0.490	0.456	0.400	0.539	0.419	0.364	0.457	13.24
19) Pentachlorophenol	0.090	0.150	0.221	0.098	0.175	0.142	0.201	0.154	32.01		
---- Quadratic regression ---- Coefficient = 0.9972											
Response Ratio = -0.02883 + 0.23421 *A + -0.00449 *A^2											
20) Phenanthrene											

87.1
8

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: E4M2828-ICC2828
 Lab FileID: 4M63805.D

	1.982	2.322	1.896	2.044	1.958	1.816	2.266	1.854	1.633	1.974	10.94
21) Anthracene	1.634	2.044	1.873	1.753	1.656	1.694	2.030	1.698	1.667	1.783	8.98
22) I Fluoranthene-d10	-----ISTD-----										
23) Fluoranthene	1.347	1.562	1.425		1.350	1.303		1.299	1.377	1.380	6.61
24) Pyrene	1.179	1.461	1.378		1.178	1.310		1.291	1.380	1.311	8.08
25) Terphenyl-d14	0.621	0.746	0.509	0.639	0.605	0.681		0.710		0.644	12.11
26) Benzo[a]anthracene	0.990	1.191	1.149		0.980	1.037		1.010	1.143	1.071	8.14
27) Chrysene	1.083	1.343	1.220		1.132	1.099		1.103	1.154	1.162	7.92
28) I Benzo(a)pyrene-d12	-----ISTD-----										
29) Benzo[b]fluoranthene	1.348	1.722	1.639		1.428	1.536		1.525	1.626	1.546	8.35
30) Benzo[k]fluoranthene	1.172	1.440	1.361		1.161	1.283		1.371	1.344	1.304	8.07
31) Benzo[a]pyrene	1.056	1.581	1.400		1.381	1.324		1.384	1.365	1.356	11.47
32) Indeno[1,2,3-cd]pyrene	1.295	1.620	1.491		1.361	1.419		1.451	1.529	1.452	7.41
33) Dibenz[a,h]anthracene	1.077	1.354	1.245		1.111	1.191		1.228	1.277	1.212	7.88
34) Benzo[g,h,i]perylene	1.228	1.457	1.285		1.234	1.243		1.301	1.303	1.293	6.09
35) I 1-Methylnaphthalene-d	-----ISTD-----										
36) 1,4-Dioxane	0.437	0.328			0.472	0.316		0.308	0.345	0.368	18.86
37) 1-Methylnaphthalene	1.419	1.609	1.493	1.508	1.391	1.268	1.432	1.251	1.472	1.427	7.98
38) I Fluorene-d10a	-----ISTD-----										
39) 4,6-dinitro-2-methylphenol	0.054	0.096	0.179		0.059	0.129		0.104	0.218	0.120	50.59
	---- Quadratic regression ---- Coefficient = 0.9995										
	Response Ratio = -0.01478 + 0.13796 *A + 0.01321 *A^2										
40) 1,2-Diphenylhydrazine	1.165	1.171			0.906	1.080		1.070	1.159	1.092	9.27
41) n-nitrosodiphenylamine	0.786	0.686			0.633	0.617		0.634	0.644	0.667	9.42

(#) = Out of Range ### Number of calibration levels exceeded format ###

M4M2828SIM.M Tue Mar 01 08:34:34 2016 MANAGER

8.7.1

8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: E4M2828-ICV2828
 Lab FileID: 4M63814.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E4M2828\4m63814.D Vial: 11
 Acq On : 29 Feb 2016 9:43 pm Operator: linseyk
 Sample : icv2828-1.0 Inst : GCMS4M
 Misc : op91493a,e4m2828 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
 Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 Last Update : Tue Mar 01 08:26:32 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1-Methylnaphthalene-d10	1.000	1.000	0.0	108	0.00	9.87
5 t	bis(2-Chloroethyl)ether	1.054	1.198	-13.7	138	0.00	5.69
7 t	Naphthalene	3.487	3.814	-9.4	133	0.00	8.41
8 t	Hexachlorobutadiene	0.530	0.586	-10.6	133	0.00	8.70
9 t	2-Methylnaphthalene	1.287	1.423	-10.6	131	-0.02	9.73
	----- True		Calc.	% Drift	-----		
10 t	Hexachlorocyclopentadiene	1.000	0.972	2.8	100	0.00	10.09
	----- AvgRF		CCRF	% Dev	-----		
12 I	Fluorene-d10	1.000	1.000	0.0	111	0.00	12.85
13 t	Acenaphthylene	1.301	1.473	-13.2	135	0.00	11.50
14 t	Acenaphthene	0.733	0.805	-9.8	133	0.00	11.85
15 t	Dibenzofuran	1.961	2.197	-12.0	137	0.00	12.21
16 t	Fluorene	1.223	1.207	1.3	111	0.00	12.89
18 t	Hexachlorobenzene	0.457	0.449	1.8	124	0.00	14.00
	----- AvgRF		CCRF	% Dev	-----		
20 t	Phenanthrene	1.974	1.938	1.8	118	-0.02	14.78
21 t	Anthracene	1.783	1.818	-2.0	119	0.00	14.89
22 I	Fluoranthene-d10	1.000	1.000	0.0	118	0.00	17.02
23 t	Fluoranthene	1.380	1.380	0.0	125	0.00	17.03
24 t	Pyrene	1.311	1.342	-2.4	121	0.00	17.43
26 t	Benzo[a]anthracene	1.071	1.048	2.1	119	0.00	19.50
27 t	Chrysene	1.162	1.116	4.0	120	0.00	19.56
28 I	Benzo(a)pyrene-d12	1.000	1.000	0.0	116	0.00	21.59
29 t	Benzo[b]fluoranthene	1.546	1.461	5.5	110	0.00	21.16
30 t	Benzo[k]fluoranthene	1.304	1.324	-1.5	119	0.00	21.20
31 t	Benzo[a]pyrene	1.356	1.397	-3.0	122	0.00	21.61
32 t	Indeno[1,2,3-cd]pyrene	1.452	1.422	2.1	116	0.00	23.17
33 t	Dibenz[a,h]anthracene	1.212	1.157	4.5	112	0.00	23.20
34 t	Benzo[g,h,i]perylene	1.293	1.225	5.3	114	-0.01	23.56
35 I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	108	0.00	9.87
36 t	1,4-Dioxane	0.368	0.362	1.6	124	0.03	2.39
38 I	Fluorene-d10a	1.000	1.000	0.0	111	0.00	12.85
	----- AvgRF		CCRF	% Dev	-----		
40 t	1,2-Diphenylhydrazine	1.092	1.033	5.4	106	0.00	13.25

Initial Calibration Verification

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BSMC, Building 5 Area, PR

Sample: E4M2828-ICV2828
Lab FileID: 4M63814.D

41 t	n-nitrosodiphenylamine	0.667	0.690	-3.4	124	-0.02	13.18
------	------------------------	-------	-------	------	-----	-------	-------

(#) = Out of Range
4m63805.D M4M2828SIM.M

SPCC's out = 0 CCC's out = 0
Tue Mar 01 08:34:18 2016 MANAGER

8.7.2

8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: E4M2828-ICV2828
 Lab FileID: 4M63815.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E4M2828\4m63815.D Vial: 12
 Acq On : 29 Feb 2016 10:14 pm Operator: linseyk
 Sample : icv2828-1.0 Inst : GCMS4M
 Misc : op91493a,e4m2828 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
 Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 Last Update : Tue Mar 01 08:26:32 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
35 I 1-Methylnaphthalene-d10a	1.000	1.000	0.0	86	0.00	9.87
37 t 1-Methylnaphthalene	1.427	1.558	-9.2	106	0.00	9.92

(#) = Out of Range

4m63805.D M4M2828SIM.M

SPCC's out = 0 CCC's out = 0

Tue Mar 01 08:34:20 2016 MANAGER

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: E4M2828-ICV2828
 Lab FileID: 4M63816.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E4M2828\4m63816.D Vial: 13
 Acq On : 29 Feb 2016 10:45 pm Operator: linseyk
 Sample : icv2828-1.0 Inst : GCMS4M
 Misc : op91493a,e4m2828 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
 Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 Last Update : Tue Mar 01 08:26:32 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1-Methylnaphthalene-d10	1.000	1.000	0.0	84	0.00	9.87
4 t	Phenol	1.423	1.222	14.1	79	0.00	5.58
	----- AvgRF		CCRF	% Dev	-----		
12 I	Fluorene-d10	1.000	1.000	0.0	87	0.00	12.85
	----- True		Calc.	% Drift	-----		
19 t	Pentachlorophenol	5.000	3.553	28.9	69	0.00	14.43
	----- AvgRF		CCRF	% Dev	-----		
22 I	Fluoranthene-d10	1.000	1.000	0.0	90	0.00	17.02
28 I	Benzo(a)pyrene-d12	1.000	1.000	0.0	91	0.00	21.59
35 I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	84	0.00	9.87
38 I	Fluorene-d10a	1.000	1.000	0.0	87	0.00	12.85
	----- True		Calc.	% Drift	-----		
39 t	4,6-dinitro-2-methylpheno	5.000	3.687	26.3	66	0.00	13.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 4m63805.D M4M2828SIM.M Tue Mar 01 08:34:22 2016 MANAGER

87.4

8

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: E4M2839-CC2828
 Lab FileID: 4M64041.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E4M2839\4m64041.D Vial: 2
 Acq On : 14 Mar 2016 9:37 am Operator: linseyk
 Sample : cc2828-.5 Inst : GCMS4M
 Misc : op91969a,e4m2839 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M (RTE Integrator)
 Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 Last Update : Tue Mar 01 08:26:32 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1-Methylnaphthalene-d10	1.000	1.000	0.0	52	0.02	9.90
2 S	2-Fluorophenol	0.893	0.901	-0.9	60	-0.02	4.22
3 S	Phenol-d5	1.360	1.463	-7.6	61	0.04	5.61
4 t	Phenol	1.423	1.561	-9.7	61	0.04	5.62
5 t	bis(2-Chloroethyl)ether	1.054	1.133	-7.5	61	0.03	5.72
6 S	Nitrobenzene-d5	1.009	1.166	-15.6	62	0.05	7.09
7 t	Naphthalene	3.487	3.792	-8.7	62	0.03	8.44
8 t	Hexachlorobutadiene	0.530	0.612	-15.5	65	0.03	8.73
9 t	2-Methylnaphthalene	1.287	1.712	-33.0#	74	-0.02	9.78
	----- True Calc. % Drift -----						
10 t	Hexachlorocyclopentadiene	1.000	1.381	-38.1#	92	0.05	10.14
	----- AvgRF CCRF % Dev -----						
11 S	2-Fluorobiphenyl	1.674	1.382	17.4	42#	0.02	10.54
12 I	Fluorene-d10	1.000	1.000	0.0	55	0.02	12.87
13 t	Acenaphthylene	1.301	1.520	-16.8	71	0.05	11.55
14 t	Acenaphthene	0.733	0.856	-16.8	69	0.07	11.89
15 t	Dibenzofuran	1.961	1.396	28.8#	44#	0.05	12.26
16 t	Fluorene	1.223	1.221	0.2	53	0.10	12.92
17 S	2,4,6-Tribromophenol	0.178	0.198	-11.2	66	0.02	13.42
18 t	Hexachlorobenzene	0.457	0.485	-6.1	63	0.05	14.04
	----- True Calc. % Drift -----						
19 t	Pentachlorophenol	2.500	2.717	-8.7	79	0.05	14.47
	----- AvgRF CCRF % Dev -----						
20 t	Phenanthrene	1.974	2.057	-4.2	61	0.03	14.83
21 t	Anthracene	1.783	1.910	-7.1	61	0.05	14.94
22 I	Fluoranthene-d10	1.000	1.000	0.0	59	0.04	17.05
23 t	Fluoranthene	1.380	1.324	4.1	60	0.04	17.07
24 t	Pyrene	1.311	1.344	-2.5	62	0.04	17.47
25 S	Terphenyl-d14	0.644	0.614	4.7	51	0.02	17.82
26 t	Benzo[a]anthracene	1.071	1.128	-5.3	66	-0.02	19.54
27 t	Chrysene	1.162	1.107	4.7	60	0.04	19.59
28 I	Benzo(a)pyrene-d12	1.000	1.000	0.0	57	0.04	21.63
29 t	Benzo[b]fluoranthene	1.546	1.827	-18.2	68	0.04	21.20
30 t	Benzo[k]fluoranthene	1.304	1.153	11.6	48#	0.04	21.24
31 t	Benzo[a]pyrene	1.356	1.435	-5.8	59	0.04	21.66

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: E4M2839-CC2828
 Lab FileID: 4M64041.D

32	t	Indeno[1,2,3-cd]pyrene	1.452	1.557	-7.2	61	0.04	23.21
33	t	Dibenz[a,h]anthracene	1.212	1.293	-6.7	60	0.08	23.25
34	t	Benzo[g,h,i]perylene	1.293	1.342	-3.8	59	0.04	23.61
35	I	1-Methylnaphthalene-d10a	1.000	1.000	0.0	52	0.02	9.90
36	t	1,4-Dioxane	0.368	0.436	-18.5	73	-0.02	2.39
37	t	1-Methylnaphthalene	1.427	1.985	-39.1#	82	0.05	9.97
38	I	Fluorene-d10a	1.000	1.000	0.0	55	0.02	12.87
		----- True	Calc.	% Drift	-----			
39	t	4,6-dinitro-2-methylpheno	2.500	2.397	4.1	61	0.00	13.11
		----- AvgRF	CCRF	% Dev	-----			
40	t	1,2-Diphenylhydrazine	1.092	1.124	-2.9	57	0.02	13.28
41	t	n-nitrosodiphenylamine	0.667	0.977	-46.5#	84	0.02	13.23

(#) = Out of Range
 4m63806.D M4M2828SIM.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 14 13:06:10 2016 MANAGER

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4514-ICC4514
 Lab FileID: P102794.D

Response Factor Report MSP

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration

Calibration Files

2 =P102791.D 5 =P102790.D 25 =P102793.D 80 =P102788.D
 100 =P102787.D 50 =P102794.D 10 =P102789.D 1 =P102792.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
159) I 1,4-Dichlorobenzene-d	-----ISTD-----									
160) Benzaldehyde	1.493	1.438	1.178	0.968	0.861	1.070	1.264	1.347	1.202	18.71
161) I Phenanthrene-d10b	-----ISTD-----									
162) Atrazine	0.205	0.229	0.206	0.195	0.191	0.202	0.206	0.198	0.204	5.61
163) I Chrysene-d12b	-----ISTD-----									
164) Benzidine	0.801	0.928	0.737	0.484		0.617	0.814	0.548	0.704	22.70
165) I Naphthalene-d8b	-----ISTD-----									
166) Hydroquinone	0.277	0.369	0.396	0.399	0.390	0.390	0.346		0.367	11.94
167) I Acenaphthene-d10b	-----ISTD-----									
168) 1,2,4,5-Tetr	0.648	0.646	0.535	0.467	0.439	0.496	0.546	0.615	0.549	14.65

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP4513.M

Thu Feb 25 16:37:51 2016

8.7.6
8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4514-ICV4514
 Lab FileID: P102798A.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D Vial: 21
 Acq On : 24 Feb 2016 7:31 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
167 I	Acenaphthene-d10b	1.000	1.000	0.0	95	0.00	8.86
168	1,2,4,5-Tetrachlorobenzen	0.549	0.509	7.3	97	0.00	7.49

(#) = Out of Range
 P102805A.D MP4513.M

SPCC's out = 0 CCC's out = 0
 Thu Feb 25 16:23:15 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4514-ICV4514
 Lab FileID: P102799A.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D Vial: 22
 Acq On : 24 Feb 2016 8:00 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
159 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	95	0.00	4.37
160	Benzaldehyde	1.202	1.156	3.8	103	0.00	3.84
161 I	Phenanthrene-d10b	1.000	1.000	0.0	94	0.00	11.22
162	Atrazine	0.204	0.201	1.5	94	0.00	10.88

(#) = Out of Range
 P102805A.D MP4513.M

SPCC's out = 0 CCC's out = 0
 Thu Feb 25 16:23:17 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4514-ICV4514
 Lab FileID: P102800.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D Vial: 23
 Acq On : 24 Feb 2016 8:29 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
165 I Naphthalene-d8b	1.000	1.000	0.0	103	0.00	6.13
166 Hydroquinone	0.367	0.386	-5.2	102	0.00	6.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 P102805A.D MP4513.M Thu Feb 25 16:23:18 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4514-ICV4514
 Lab FileID: P102801A.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D Vial: 24
 Acq On : 24 Feb 2016 8:58 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
163 I Chrysene-d12b	1.000	1.000	0.0	113	0.00	15.95
164 Benzidine	0.704	1.090	-54.8#	199	0.00	13.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 P102805A.D MP4513.M Thu Feb 25 16:23:20 2016

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4515-ICC4515
 Lab FileID: P102805.D

Response Factor Report MSP

Method : C:\MSDCHEM\1\METHODS\MP4515.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration

Calibration Files

2 =P102809.D 5 =P102808.D 25 =P102806.D 80 =P102804.D
 100 =P102803.D 50 =P102805.D 10 =P102807.D 1 =P102810.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
102) I 1,4-Dichlorobenzene-d	-----ISTD-----									
103) 2-Picoline	1.969	1.836	1.698	1.533	1.556	1.616	1.666	1.839	1.714	8.97
104) Pentachloroe	0.613	0.618	0.588	0.535	0.523	0.563	0.583	0.565	0.573	5.89
105) Methyl metha	0.908	0.912	0.827	0.765	0.765	0.800	0.822	0.975	0.847	9.04
106) N-Nitrosodie	0.694	0.787	0.692	0.659	0.665	0.686	0.681	0.716	0.698	5.77
107) N-Nitrosomet	0.635	0.625	0.546	0.512	0.522	0.534	0.563	0.670	0.576	10.28
108) Ethyl methan	1.124	1.204	1.115	1.024	1.017	1.058	1.107	1.349	1.125	9.70
109) N-Nitrosopyr	0.366	0.453	0.382	0.384	0.387	0.389	0.402	0.446	0.401	7.85
110) N-Nitrosomor	0.834	0.720	0.622	0.492	0.489	0.535	0.665	0.758	0.639	20.00
111) o-Toluidine	2.381	2.346	1.946	1.663	1.624	1.774	2.091	2.541	2.046	17.11
112) I Naphthalene-d8A	-----ISTD-----									
113) O,O,O-Trieth	0.155	0.173	0.162	0.149	0.145	0.157	0.162	0.164	0.158	5.63
114) N-Nitrosopip	0.195	0.214	0.203	0.189	0.181	0.194	0.203	0.220	0.200	6.48
115) A,A-Dimethyl	0.658	0.730	0.713	0.793	0.787	0.748	0.664	0.648	0.718	7.96
116) Hexachloropr	0.188	0.227	0.215	0.205	0.193	0.209	0.212	0.201	0.206	6.11
117) N-Nitrosodi-	0.249	0.280	0.265	0.239	0.234	0.247	0.261	0.249	0.253	5.94
118) p-Phenylened	0.025	0.080	0.194	0.200	0.187	0.183	0.122	0.055	0.131	53.56
----- Quadratic regression -----										
Response Ratio = -0.01175 + 0.20739 *A + -0.00487 *A^2									Coefficient =	0.9975
119) Safrole	0.277	0.285	0.270	0.246	0.240	0.260	0.263	0.258	0.262	5.70
120) Isosafrole	0.073	0.085	0.086	0.083	0.081	0.083	0.080	0.074	0.081	6.04
121) Acenaphthene-d10A	-----ISTD-----									
122) Thionazin	0.179	0.166	0.167	0.154	0.146	0.161	0.173	0.128	0.159	10.30
123) Tetraethyl d	0.110	0.148	0.148	0.140	0.133	0.144	0.148	0.101	0.134	13.88
124) Phorate	0.788	0.863	0.796	0.659	0.626	0.698	0.825	0.718	0.746	11.23
125) Phenacetin	0.580	0.715	0.697	0.626	0.601	0.650	0.695	0.521	0.636	10.53
126) 1,4-Naphthoq	0.249	0.286	0.321	0.299	0.280	0.309	0.305	0.223	0.284	11.62
127) m-Dinitroben	0.103	0.140	0.179	0.191	0.179	0.183	0.157	0.080	0.152	26.85
----- Quadratic regression -----										
Response Ratio = -0.00684 + 0.19927 *A + -0.00578 *A^2									Coefficient =	0.9987
128) Pentachlorob	0.481	0.474	0.443	0.395	0.372	0.401	0.442	0.484	0.437	9.79
129) 2-Naphthylam	1.310	1.306	1.086	0.957	0.914	1.010	1.144	1.271	1.125	14.09
130) 1-Naphthylam	1.003	1.097	0.934	0.841	0.815	0.851	1.020	0.999	0.945	10.70
131) 5-Nitro-o-to	0.326	0.384	0.383	0.347	0.332	0.352	0.385	0.253	0.345	12.77
132) I Phenanthrene-d10A	-----ISTD-----									
133) Disulfoton	0.397	0.439	0.408	0.340	0.323	0.368	0.409	0.352	0.380	10.49
134) Dinoseb	0.044	0.080	0.150	0.170	0.157	0.165	0.113	0.025	0.113	50.52
----- Quadratic regression -----										
Response Ratio = -0.01099 + 0.18414 *A + -0.00772 *A^2									Coefficient =	0.9977

8.7.11

8

Initial Calibration Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4515-ICC4515
Lab FileID: P102805.D

135)	Dimethoate	0.306	0.346	0.347	0.291	0.275	0.312	0.329	0.238	0.305	12.23
136)	4-Aminobiphe	0.838	0.875	0.777	0.649	0.601	0.716	0.776	0.756	0.748	12.16
137)	Methyl parat	0.137	0.196	0.232	0.208	0.196	0.225	0.205		0.200	15.53
138)	Parathion	0.120	0.175	0.179	0.151	0.140	0.167	0.168	0.097	0.149	19.49
139)	Diphenylamin		1.347	1.156	0.939	0.891	1.034	1.219		1.098	15.90
140)	Isodrin	0.124	0.137	0.133	0.116	0.110	0.123	0.130	0.141	0.127	8.25
141)	Diallate	0.303	0.315	0.278	0.229	0.216	0.245	0.281	0.301	0.271	13.62
142)	Pentachloron	0.034	0.038	0.035	0.031	0.030	0.033	0.038	0.026	0.033#	12.21
143)	Pronamide	0.262	0.317	0.340	0.308	0.294	0.319	0.312	0.210	0.295	13.89
144)	4-Nitroquino	0.035	0.063	0.118	0.114	0.106	0.119	0.088		0.092	35.04
		----- Quadratic regression -----								Coefficient =	0.9993
		Response Ratio = -0.03768 + 0.14299 *A + -0.00323 *A^2									
145)	Methapyrilin	0.243	0.349	0.343	0.257	0.223	0.302	0.350	0.228	0.287	19.43
146)	sym-Trinitro	0.016	0.027	0.057	0.067	0.063	0.064	0.040	0.011	0.043#	52.94
		----- Quadratic regression -----								Coefficient =	0.9978
		Response Ratio = -0.00432 + 0.06896 *A + -0.00113 *A^2									
147)	I Chrysene-d12A	-----ISTD-----									
148)	Aramite	0.013	0.027	0.036	0.036	0.035	0.036	0.030		0.030#	28.22
		----- Quadratic regression -----								Coefficient =	0.9997
		Response Ratio = -0.00367 + 0.04017 *A + -0.00086 *A^2									
149)	p-(Dimethyla	0.326	0.432	0.471	0.422	0.407	0.443	0.444	0.289	0.404	15.67
150)	Kepone	0.077	0.082	0.059	0.043	0.037	0.048	0.070	0.064	0.060	27.13
		----- Quadratic regression -----								Coefficient =	0.9981
		Response Ratio = 0.00930 + 0.06106 *A + -0.00165 *A^2									
151)	Famphur	0.457	0.517	0.356	0.192	0.155	0.256	0.451	0.412	0.350	38.30
		----- Quadratic regression -----								Coefficient =	0.9943
		Response Ratio = 0.08833 + 0.36041 *A + -0.01429 *A^2									
152)	2-Acetylamin	0.308	0.417	0.568	0.554	0.517	0.562	0.495		0.489	19.52
153)	3,3'-Dimethy	0.522	0.674	0.347	0.139	0.113	0.202	0.568	0.428	0.374	55.96
154)	Chlorobenzil	0.267	0.332	0.341	0.325	0.304	0.331	0.311	0.201	0.302	15.50
155)	I Perylene-d12A	-----ISTD-----									
156)	4,4-Methylen	0.124	0.145	0.141	0.105	0.097	0.124	0.135		0.125	14.42
157)	Hexachloroph		0.012	0.047	0.087	0.083	0.073	0.023		0.054	58.79
		----- Quadratic regression -----								Coefficient =	0.9946
		Response Ratio = -0.06822 + 0.07837 *A + 0.00102 *A^2									
158)	3-Methylchol	0.162	0.207	0.243	0.236	0.222	0.242	0.217		0.218	12.90

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP4513.M

Fri Feb 26 08:24:31 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4515-ICV4515
 Lab FileID: P102811.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
102 I	1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	107	0.00 4.37
103 M	2-Picoline	1.714	1.504	12.3	100	0.00 2.47
104	Pentachloroethane	0.573	0.425	25.8	81	0.00 4.03
106 M	N-Nitrosodiethylamine	0.698	0.660	5.4	103	0.00 3.16
107 M	N-Nitrosomethylethylamine	0.576	0.536	6.9	107	0.00 2.54
108 M	Ethyl methanesulfonate	1.125	1.017	9.6	103	0.00 3.46
109 M	N-Nitrosopyrrolidine	0.401	0.413	-3.0	114	0.00 4.85
110 M	N-Nitrosomorpholine	0.639	0.577	9.7	115	0.00 4.91
112 I	Naphthalene-d8A	1.000	1.000	0.0	106	0.00 6.13
113 M	O,O,O-Triethyl phosphorot	0.158	0.151	4.4	102	0.00 5.78
114 M	N-Nitrosopiperidine	0.200	0.194	3.0	106	0.00 5.32
115 M	A,A-Dimethylphenethylamin	0.718	0.765	-6.5	109	-0.34 6.17
116 M	Hexachloropropene	0.206	0.188	8.7	95	0.00 6.31
117 M	N-Nitrosodi-n-butylamine	0.253	0.245	3.2	105	0.00 6.81
118	p-Phenylenediamine	50.000	60.971	-21.9	136	0.00 6.79
119 M	Safrole	0.262	0.266	-1.5	109	0.00 7.12
121	Acenaphthene-d10A	1.000	1.000	0.0	105	0.00 8.86
122 M	Thionazin	0.159	0.160	-0.6	105	0.00 9.76
123 M	Tetraethyl dithiopyrophos	0.134	0.137	-2.2	100	0.00 10.29
124 M	Phorate	0.746	0.719	3.6	108	0.00 10.47
125 M	Phenacetin	0.636	0.630	0.9	102	0.00 10.51
126 M	1,4-Naphthoquinone	0.284	0.328	-15.5	112	0.00 8.26
128 M	Pentachlorobenzene	0.437	0.390	10.8	102	0.00 9.13
131 M	5-Nitro-o-toluidine	0.345	0.253	26.7	76	0.00 9.77
132 I	Phenanthrene-d10A	1.000	1.000	0.0	103	0.00 11.23
133 M	Disulfoton	0.380	0.409	-7.6	115	0.00 11.31
135 M	Dimethoate	0.305	0.304	0.3	101	0.00 10.71
137 M	Methyl parathion	0.200	0.185	7.5	85	0.00 11.92
138 M	Parathion	0.149	0.173	-16.1	107	0.00 12.61
140 M	Isodrin	0.127	0.127	0.0	106	0.00 13.03
141 M	Diallate	0.271	0.272	-0.4	115	0.00 10.46
142 M	Pentachloronitrobenzene	0.033	0.034	-0.03	106	0.00 10.97
143 M	Pronamide	0.295	0.342	-15.9	111	0.00 11.13

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4515-ICV4515
 Lab FileID: P102811.D

		True	Calc.	% Drift			
144	M	4-Nitroquinoline 1-oxide	50.000	38.127	23.7	68	-0.02 12.57
			AvgRF	CCRF	% Dev		
145	M	Methapyriline	0.287	0.303	-5.6	104	-0.05 12.79
			AvgRF	CCRF	% Dev		
147	I	Chrysene-d12A	1.000	1.000	0.0	106	0.00 15.95
			True	Calc.	% Drift		
148		Aramite	100.000	117.441	-17.4	125	0.00 14.25
			AvgRF	CCRF	% Dev		
149	M	p-(Dimethylamine)azobenze	0.404	0.440	-8.9	105	0.00 14.33
152	M	2-Acetylaminofluorene	0.489	0.589	-20.4	111	0.00 15.42
154	M	Chlorobenzilate	0.302	0.296	2.0	95	0.00 14.45
155	I	Perylene-d12A	1.000	1.000	0.0	105	0.00 18.52
158		3-Methylcholanthrene	0.218	0.229	-5.0	99	0.00 19.02

(#) = Out of Range SPPC's out = 0 CCC's out = 0
 P102805A.D MP4513.M Fri Feb 26 08:24:13 2016

8.7.12
8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4515-ICV4515
 Lab FileID: P102812.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4515\P102812.D Vial: 11
 Acq On : 24 Feb 2016 2:41 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
102 I 1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	107	0.00	4.37
105 M Methyl methanesulfonate	0.847	0.828	2.2	110	0.00	2.79
111 M o-Toluidine	2.046	1.881	8.1	113	0.00	4.95
112 I Naphthalene-d8A	1.000	1.000	0.0	105	0.00	6.13
120 Isosafrole	0.081	0.133	-64.2#	168	0.00	7.93
121 Acenaphthene-d10A	1.000	1.000	0.0	104	0.00	8.86
129 M 2-Naphthylamine	1.125	1.207	-7.3	124	0.00	9.44
130 M 1-Naphthylamine	0.945	1.202	-27.2	147	0.00	9.31
132 I Phenanthrene-d10A	1.000	1.000	0.0	103	0.00	11.23
136 M 4-Aminobiphenyl	0.748	0.756	-1.1	108	0.00	10.97
----- True Calc. % Drift -----						
146 M sym-Trinitrobenzene	50.000	44.628	10.7	92	0.00	10.40
----- AvgRF CCRF % Dev -----						
147 I Chrysene-d12A	1.000	1.000	0.0	106	0.00	15.95
----- True Calc. % Drift -----						
150 Kepone	50.000	41.275	17.5	126	0.00	14.96
151 M Famphur	50.000	43.019	14.0	150	-0.02	14.90
----- AvgRF CCRF % Dev -----						
153 M 3,3'-Dimethylbenzidine	0.374	0.679	-81.6#	356#	0.00	14.96

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 P102805A.D MP4513.M Fri Feb 26 08:24:14 2016

8.7.13

8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4515-ICV4515
 Lab FileID: P102813.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4515\P102813.D Vial: 12
 Acq On : 24 Feb 2016 3:10 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
121 Acenaphthene-d10A	1.000	1.000	0.0	131	0.00	8.86
----- True	Calc.	% Drift	-----			
127 M m-Dinitrobenzene	50.000	56.623	-13.2	151	-0.11	8.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 P102805A.D MP4513.M Fri Feb 26 08:24:15 2016

8.7.14

8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4515-ICV4515
 Lab FileID: P102814.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4515\P102814.D Vial: 13
 Acq On : 24 Feb 2016 3:40 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
132 I Phenanthrene-d10A	1.000	1.000	0.0	119	0.00	11.22
139 M Diphenylamine	1.098	0.783	28.7	91	0.00	9.97

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 P102805A.D MP4513.M Fri Feb 26 08:24:16 2016

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICC4524
 Lab FileID: P103017.D

Response Factor Report MSP

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration

Calibration Files

2 =P103015.D 5 =P103014.D 25 =P103018.D 80 =P103012.D
 100 =P103011.D 50 =P103017.D 10 =P103013.D 1 =P103016.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
-----ISTD-----										
1) I 1,4-Dichlorobenzene-d										
2) 1,4-Dioxane	0.777	0.716	0.721	0.624	0.626	0.757	0.631	0.834	0.711	11.04
3) Pyridine	1.581	1.654	1.751	1.401	1.419	1.729	1.626	1.675	1.604	8.20
4) N-Nitrosodim	0.614	0.593	0.639	0.546	0.542	0.651	0.585	0.630	0.600	6.83
5) 2-Fluorophen	1.323	1.387	1.551	1.302	1.296	1.576	1.419	1.284	1.392	8.32
6) Indene	2.297	2.390	2.495	1.972	1.913	2.492	2.363	2.280	2.275	9.69
7) Cumene	3.409	3.405	3.648	2.649	2.520	3.496	3.392	3.773	3.287	13.83
8) Phenol-d5	1.776	1.728	1.873	1.465	1.425	1.874	1.763	1.685	1.699	9.99
9) Phenol	1.784	1.739	1.897	1.633	1.612	1.882	1.788	1.689	1.753	6.03
10) Aniline	2.052	2.064	2.156	1.506	1.449	1.969	2.005	2.079	1.910	14.30
11) bis(2-Chloro	1.413	1.288	1.330	1.122	1.128	1.343	1.281	1.413	1.290	8.75
12) 2-Chlorophen	1.441	1.367	1.438	1.165	1.131	1.437	1.406	1.241	1.328	9.74
13) Decane	1.204	1.083	1.130	0.870	0.839	1.086	1.091	1.153	1.057	12.45
14) 1,3-Dichloro	1.591	1.524	1.598	1.285	1.239	1.574	1.547	1.548	1.488	9.57
15) 1,4-Dichloro	1.552	1.437	1.566	1.239	1.206	1.529	1.469	1.435	1.429	9.59
16) Benzyl alcoh	0.777	0.790	0.887	0.706	0.687	0.908	0.818	0.745	0.790	10.05
17) 1,2-Dichloro	1.397	1.435	1.460	1.133	1.094	1.430	1.399	1.500	1.356	11.33
18) Acetophenone	1.790	1.873	1.977	1.586	1.554	1.954	1.818	1.840	1.799	8.63
19) 2-Methylphen	1.126	1.113	1.253	1.028	1.034	1.246	1.168	1.069	1.130	7.76
20) 2,2'-oxybis(0.420	0.420	0.453	0.382	0.386	0.453	0.417	0.462	0.424	7.19
21) 3&4-Methylph	1.202	1.219	1.370	1.149	1.129	1.388	1.258	1.147	1.233	8.11
22) n-Nitroso-di	0.914	0.895	0.992	0.804	0.793	0.986	0.933	0.904	0.903	8.15
23) Hexachloroet	0.473	0.473	0.503	0.429	0.431	0.499	0.469	0.449	0.466	6.01
-----ISTD-----										
24) I Naphthalene-d8										
25) Nitrobenzene	0.409	0.398	0.438	0.380	0.376	0.445	0.409	0.384	0.405	6.40
26) Nitrobenzene	0.382	0.397	0.415	0.352	0.342	0.413	0.395	0.414	0.389	7.32
27) Quinoline	0.709	0.738	0.786	0.669	0.652	0.799	0.705	0.709	0.721	7.18
28) Isophorone	0.614	0.665	0.744	0.615	0.600	0.756	0.684	0.593	0.659	9.75
29) 2-Nitropheno	0.175	0.178	0.219	0.192	0.188	0.225	0.191	0.156	0.191	11.94
30) 2,4-Dimethyl	0.290	0.312	0.362	0.328	0.322	0.384	0.322	0.270	0.324	11.16
31) Benzoic acid			0.240	0.278	0.271	0.284	0.184		0.251	16.36
32) bis(2-Chloro	0.417	0.422	0.458	0.381	0.370	0.462	0.411	0.408	0.416	7.78
33) 2,4-Dichloro	0.260	0.285	0.325	0.273	0.262	0.325	0.293	0.240	0.283	10.80
34) 2,6-Dichloro	0.252	0.281	0.303	0.254	0.245	0.303	0.277	0.258	0.271	8.40
35) 1,3,5-Trichl	0.321	0.331	0.343	0.271	0.262	0.339	0.320	0.349	0.317	10.33
36) 1,2,4-Trichl	0.319	0.333	0.332	0.278	0.267	0.331	0.318	0.328	0.313	8.35
37) 1,2,3-Trichl	0.317	0.301	0.302	0.245	0.235	0.301	0.299	0.302	0.288	10.51
38) Naphthalene	1.054	1.051	1.090	0.838	0.786	1.070	1.009	1.039	0.992	11.53
39) 4-Chloroanil	0.414	0.447	0.475	0.373	0.358	0.472	0.444	0.392	0.422	10.57
40) 2,3-Dichloro	0.366	0.375	0.394	0.329	0.321	0.402	0.361	0.326	0.359	8.71
41) Caprolactam	0.109	0.128	0.149	0.141	0.142	0.158	0.129	0.109	0.133	13.41
42) Hexachlorobu	0.162	0.164	0.167	0.139	0.135	0.165	0.153	0.161	0.156	7.80
43) 4-Chloro-3-m	0.259	0.300	0.353	0.303	0.298	0.369	0.314	0.220	0.302	15.74
44) 2-Methylnaph	0.557	0.577	0.604	0.480	0.456	0.598	0.576	0.549	0.550	9.80
45) 1-Methylnaph	0.693	0.715	0.736	0.588	0.561	0.727	0.690	0.652	0.670	9.70

8.7.16
8

Initial Calibration Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICC4524
Lab FileID: P103017.D

46)	Dimethylnaph	0.586	0.605	0.648	0.513	0.496	0.645	0.604	0.593	0.586	9.45
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.217	0.230	0.305	0.276	0.276	0.326	0.274	0.180	0.261	18.47
49)	2,4,6-Trichl	0.284	0.296	0.356	0.319	0.312	0.367	0.325	0.248	0.313	12.26
50)	2,4,5-Trichl	0.284	0.325	0.364	0.329	0.331	0.395	0.335	0.246	0.326	13.92
51)	2-Fluorobiph	1.305	1.294	1.293	1.016	0.980	1.290	1.266	1.265	1.214	11.05
52)	2-Chloronaph	1.154	1.133	1.128	0.877	0.854	1.110	1.086	1.063	1.051	11.21
53)	Biphenyl	1.513	1.426	1.446	1.106	1.046	1.421	1.411	1.438	1.351	12.84
54)	2-Nitroanili	0.262	0.278	0.351	0.318	0.321	0.371	0.312	0.218	0.304	16.32
55)	Dimethylphth	1.206	1.244	1.318	1.114	1.092	1.351	1.234	1.158	1.215	7.55
56)	Acenaphthyle	1.703	1.754	1.864	1.436	1.376	1.850	1.719	1.725	1.678	10.67
57)	2,6-Dinitrot	0.198	0.238	0.295	0.275	0.273	0.320	0.276	0.198	0.259	17.03
58)	3-Nitroanili	0.250	0.291	0.358	0.317	0.313	0.379	0.320	0.211	0.305	17.86
59)	Acenaphthene	1.053	1.077	1.142	0.906	0.884	1.147	1.054	1.083	1.043	9.42
60)	2,4-Dinitrop	0.026	0.053	0.126	0.160	0.162	0.162	0.087		0.111	50.86
	----- Quadratic regression -----	Coefficient = 0.9983									
	Response Ratio = -0.02896 + 0.16490 *A + 0.00063 *A^2										
61)	4-Nitropheno	0.121	0.126	0.180	0.185	0.192	0.204	0.153		0.166	19.76
62)	Dibenzofuran	1.533	1.549	1.623	1.278	1.225	1.609	1.500	1.442	1.470	10.02
63)	2,4-Dinitrot	0.261	0.314	0.400	0.352	0.351	0.413	0.348	0.195	0.329	21.86
	----- Quadratic regression -----	Coefficient = 0.9979									
	Response Ratio = -0.01311 + 0.45486 *A + -0.04135 *A^2										
64)	2,3,4,6-Tetr	0.186	0.233	0.277	0.260	0.259	0.300	0.239		0.251	14.48
65)	Diethylphtha	1.200	1.218	1.321	1.116	1.090	1.371	1.230	1.111	1.207	8.39
66)	Fluorene	1.213	1.267	1.314	1.069	1.037	1.337	1.237	1.128	1.200	9.27
67)	4-Chlorophen	0.554	0.570	0.587	0.487	0.476	0.586	0.544	0.504	0.539	8.19
68)	4-Nitroanili	0.236	0.276	0.339	0.309	0.313	0.365	0.307		0.306	13.62
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.069	0.131	0.148	0.154	0.159	0.100			0.127	27.86
	----- Linear regression -----	Coefficient = 0.9977									
	Response Ratio = -0.01194 + 0.15773 *A										
71)	n-Nitrosodip	0.546	0.570	0.641	0.551	0.547	0.670	0.574	0.509	0.576	9.30
72)	1,2-Diphenyl	0.760	0.793	0.884	0.737	0.725	0.903	0.816	0.698	0.789	9.42
73)	2,4,6-Tribr	0.066	0.080	0.103	0.101	0.103	0.114	0.088		0.094	17.60
74)	4-Bromopheny	0.178	0.188	0.210	0.193	0.196	0.227	0.193	0.180	0.196	8.28
75)	Hexachlorobe	0.214	0.207	0.220	0.197	0.201	0.231	0.209	0.220	0.212	5.30
76)	Pentachlorop	0.048	0.069	0.118	0.127	0.130	0.139	0.094		0.103	33.32
	----- Quadratic regression -----	Coefficient = 0.9978									
	Response Ratio = -0.01809 + 0.14437 *A + -0.00235 *A^2										
77)	Phenanthrene	1.037	1.026	1.137	0.918	0.903	1.148	1.038	0.999	1.026	8.64
78)	Anthracene	0.999	1.043	1.156	0.949	0.929	1.190	1.067	0.895	1.029	10.32
79)	Carbazole	0.997	1.080	1.202	0.975	0.958	1.230	1.078	0.910	1.054	10.97
80)	Di-n-butylph	0.997	1.176	1.462	1.220	1.191	1.541	1.316	0.923	1.228	17.17
81)	Fluoranthene	1.023	1.082	1.246	1.045	1.024	1.289	1.127	0.998	1.104	9.86
82)	Octadecane	0.374	0.389	0.456	0.385	0.376	0.487	0.406	0.349	0.403	11.47
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.223	1.275	1.447	1.202	1.155	1.428	1.291	1.163	1.273	8.82
85)	Terphenyl-d1	0.745	0.751	0.866	0.769	0.754	0.903	0.768	0.744	0.788	7.78
86)	Butylbenzylp	0.419	0.537	0.707	0.665	0.655	0.760	0.591		0.619	18.48
87)	Butyl steara	0.170	0.244	0.348	0.324	0.311	0.372	0.283		0.293	23.39
	----- Quadratic regression -----	Coefficient = 0.9985									
	Response Ratio = -0.02367 + 0.43258 *A + -0.04551 *A^2										

Initial Calibration Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICC4524
Lab FileID: P103017.D

88)	Benzo[a]anth	0.969	0.988	1.160	1.035	1.019	1.205	0.996	0.976	1.044	8.54
89)	3,3'-Dichlor	0.241	0.306	0.423	0.407	0.405	0.452	0.351		0.369	20.10
	----- Quadratic regression -----										
										Coefficient =	0.9988
										Response Ratio =	-0.02261 + 0.49442 *A + -0.03344 *A^2
90)	Chrysene	1.038	0.993	1.143	0.986	0.977	1.151	1.022	0.954	1.033	7.24
91)	bis(2-Ethylh	0.477	0.661	0.928	0.879	0.847	1.001	0.763		0.794	22.42
	----- Quadratic regression -----										
										Coefficient =	0.9986
										Response Ratio =	-0.06180 + 1.15010 *A + -0.11255 *A^2
92)	I Perylene-d12										
	-----ISTD-----										
93)	Di-n-octylph	0.708	1.144	1.681	1.427	1.382	1.836	1.391		1.367	26.85
	----- Quadratic regression -----										
										Coefficient =	0.9944
										Response Ratio =	-0.12624 + 2.19676 *A + -0.31528 *A^2
94)	Benzo[b]fluo	1.065	1.146	1.275	1.087	1.067	1.352	1.159	0.951	1.138	11.17
95)	Benzo[k]fluo	1.066	1.142	1.251	0.962	0.951	1.249	1.104	1.041	1.096	10.49
96)	Benzo[a]pyre	0.879	0.999	1.179	0.964	0.951	1.215	1.054	0.787	1.004	14.32
97)	Indeno[1,2,3	0.723	0.849	1.037	0.907	0.929	1.110	0.895	0.637	0.886	17.34
98)	Dibenz(a,h)a	0.599	0.757	0.961	0.850	0.835	1.057	0.848		0.844	17.22
99)	Dibenz[a,h]a	0.873	0.922	1.092	0.945	0.946	1.175	0.956	0.728	0.955	14.09
100)	7,12-Dimethy	0.378	0.428	0.561	0.484	0.474	0.593	0.454		0.482	15.43
101)	Benzo[g,h,i]	0.910	1.004	1.136	0.965	0.972	1.218	1.007	0.903	1.015	10.80

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP4524.M

Thu Mar 03 11:11:34 2016

8.7.16

8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICV4524
 Lab FileID: P103019.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
 Acq On : 2 Mar 2016 9:05 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	120	0.00	4.34
9 t	Phenol	1.753	1.661	5.2	106	0.00	3.98
12 t	2-Chlorophenol	1.328	1.289	2.9	108	0.00	4.11
19 t	2-Methylphenol	1.130	1.149	-1.7	111	-0.01	4.72
21 t	3&4-Methylphenol	1.233	1.212	1.7	105	0.00	4.93
24 I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	6.10
29 t	2-Nitrophenol	0.191	0.202	-5.8	103	0.00	5.55
30 t	2,4-Dimethylphenol	0.324	0.361	-11.4	108	0.00	5.67
31 t	Benzoic acid	0.251	0.233	7.2	95	0.00	5.87
33 t	2,4-Dichlorophenol	0.283	0.281	0.7	100	0.00	5.95
34	2,6-Dichlorophenol	0.271	0.281	-3.7	107	0.00	6.25
43 t	4-Chloro-3-methylphenol	0.302	0.311	-3.0	97	-0.01	7.07
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	8.82
49 t	2,4,6-Trichlorophenol	0.313	0.326	-4.2	103	0.00	7.67
50 t	2,4,5-Trichlorophenol	0.326	0.319	2.1	94	0.00	7.77
60 t	2,4-Dinitrophenol	50.000	39.374	21.3	76	0.00	8.96
61 t	4-Nitrophenol	0.166	0.167	-0.6	95	0.00	9.26
64	2,3,4,6-Tetrachlorophenol	0.251	0.238	5.2	92	0.00	9.39
69 I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	11.18
70 t	4,6-Dinitro-2-methylpheno	50.000	42.455	15.1	91	0.00	9.81
76 t	Pentachlorophenol	50.000	43.186	15.1	90	0.00	10.93

(#) = Out of Range
 P103017A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 03 11:09:38 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICV4524
 Lab FileID: P103020.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
 Acq On : 2 Mar 2016 9:34 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	133	0.00	4.35
3 t	Pyridine	1.604	1.667	-3.9	128	0.08	2.05
10 t	Aniline	1.910	2.027	-6.1	137	0.01	3.96
16 t	Benzyl alcohol	0.790	0.848	-7.3	124	0.00	4.54
24 I	Naphthalene-d8	1.000	1.000	0.0	139	0.00	6.10
39 t	4-Chloroaniline	0.422	0.362	14.2	107	0.00	6.24
44 t	2-Methylnaphthalene	0.550	0.517	6.0	120	0.00	7.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	130	0.00	8.82
54 t	2-Nitroaniline	0.304	0.346	-13.8	121	0.00	8.14
58 t	3-Nitroaniline	0.305	0.330	-8.2	113	0.00	8.80
62 t	Dibenzofuran	1.470	1.515	-3.1	123	0.00	9.15
68 t	4-Nitroaniline	0.306	0.335	-9.5	120	0.00	9.77
69 I	Phenanthrene-d10	1.000	1.000	0.0	142	0.00	11.18
79 t	Carbazole	1.054	1.026	2.7	118	0.00	11.61
83 I	Chrysene-d12	1.000	1.000	0.0	134	0.00	15.90

(#) = Out of Range
 P103017A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 03 11:09:39 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICV4524
 Lab FileID: P103021.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
 Acq On : 2 Mar 2016 10:03 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	4.34
5 S	2-Fluorophenol	1.392	1.384	0.6	104	0.00	2.97
8 S	Phenol-d5	1.699	1.713	-0.8	109	0.00	3.96
24 I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	6.09
25 S	Nitrobenzene-d5	0.405	0.405	0.0	107	0.00	5.07
47 I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	8.82
51 S	2-Fluorobiphenyl	1.214	1.195	1.6	106	0.00	7.79
69 I	Phenanthrene-d10	1.000	1.000	0.0	114	0.00	11.18
73 S	2,4,6-Tribromophenol	0.094	0.089	5.3	89	0.00	10.09
83 I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	15.90
85 S	Terphenyl-d14	0.788	0.797	-1.1	96	0.00	14.01

(#) = Out of Range
 P103017A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 03 11:09:40 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICV4524
 Lab FileID: P103022.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
 Acq On : 2 Mar 2016 10:32 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	4.34
4 t	N-Nitrosodimethylamine	0.600	0.543	9.5	99	0.00	1.94
11 t	bis(2-Chloroethyl)ether	1.290	1.356	-5.1	120	0.00	4.02
14 t	1,3-Dichlorobenzene	1.488	1.444	3.0	109	0.00	4.28
15 t	1,4-Dichlorobenzene	1.429	1.376	3.7	107	0.00	4.36
17 t	1,2-Dichlorobenzene	1.356	1.367	-0.8	114	0.00	4.56
20 t	2,2'-oxybis(1-Chloropropa	0.424	0.383	9.7	101	0.00	4.70
22	n-Nitroso-di-n-propylamin	0.903	0.894	1.0	108	0.00	4.88
23 t	Hexachloroethane	0.466	0.461	1.1	110	0.00	5.00
24 I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	6.10
26 t	Nitrobenzene	0.389	0.376	3.3	104	0.00	5.10
28 t	Isophorone	0.659	0.702	-6.5	107	0.00	5.44
32 t	bis(2-Chloroethoxy)methan	0.416	0.418	-0.5	104	0.00	5.78
36 t	1,2,4-Trichlorobenzene	0.313	0.310	1.0	108	0.00	6.02
38 t	Naphthalene	0.992	0.988	0.4	106	0.00	6.13
42 t	Hexachlorobutadiene	0.156	0.162	-3.8	112	0.00	6.34
47 I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	8.82
52 t	2-Chloronaphthalene	1.051	1.078	-2.6	112	0.00	7.94
55 t	Dimethylphthalate	1.215	1.170	3.7	100	0.00	8.47
56 t	Acenaphthylene	1.678	1.583	5.7	99	0.00	8.59
57 t	2,6-Dinitrotoluene	0.259	0.255	1.5	92	0.00	8.54
59 t	Acenaphthene	1.043	1.017	2.5	102	0.00	8.87
63 t	2,4-Dinitrotoluene	50.000	43.762	12.5	97	0.00	9.17
65 t	Diethylphthalate	1.207	1.155	4.3	97	0.00	9.60
66 t	Fluorene	1.200	1.168	2.7	101	0.00	9.69
67 t	4-Chlorophenyl-phenylethe	0.539	0.506	6.1	100	0.00	9.74
69 I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	11.18
71 t	n-Nitrosodiphenylamine	0.576	0.537	6.8	96	0.00	9.93
72 t	1,2-Diphenylhydrazine	0.789	0.743	5.8	98	0.00	9.98
74 t	4-Bromophenyl-phenylether	0.196	0.192	2.0	101	0.00	10.51
75 t	Hexachlorobenzene	0.212	0.189	10.8	98	0.00	10.58
77 t	Phenanthrene	1.026	0.983	4.2	102	0.00	11.22
78 t	Anthracene	1.029	0.974	5.3	98	0.00	11.30

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICV4524
 Lab FileID: P103022.D

80	t	Di-n-butylphthalate	1.228	1.242	-1.1	96	0.00	12.29
81	t	Fluoranthene	1.104	1.075	2.6	99	0.00	13.24
83	I	Chrysene-d12	1.000	1.000	0.0	101	0.00	15.90
84	t	Pyrene	1.273	1.392	-9.3	99	0.00	13.63
86	t	Butylbenzylphthalate	0.619	0.697	-12.6	93	0.00	15.00
		----- AvgRF	CCRF	% Dev	-----			
88	t	Benzo[a]anthracene	1.044	1.135	-8.7	95	0.00	15.89
		----- AvgRF	CCRF	% Dev	-----			
90	t	Chrysene	1.033	1.076	-4.2	95	0.00	15.95
		----- True	Calc.	% Drift	-----			
91	t	bis(2-Ethylhexyl)phthalat	50.000	46.469	7.1	91	0.00	16.17
		----- AvgRF	CCRF	% Dev	-----			
92	I	Perylene-d12	1.000	1.000	0.0	99	0.00	18.47
		----- True	Calc.	% Drift	-----			
93	t	Di-n-octylphthalate	50.000	48.962	2.1	90	0.00	17.38
		----- AvgRF	CCRF	% Dev	-----			
94	t	Benzo[b]fluoranthene	1.138	1.192	-4.7	87	0.00	17.83
95	t	Benzo[k]fluoranthene	1.096	1.232	-12.4	97	-0.01	17.88
96	t	Benzo[a]pyrene	1.004	1.154	-14.9	94	0.00	18.37
97	t	Indeno[1,2,3-cd]pyrene	0.886	1.025	-15.7	91	0.00	20.09
99	t	Dibenz[a,h]anthracene	0.955	1.071	-12.1	90	0.00	20.14
101	t	Benzo[g,h,i]perylene	1.015	1.094	-7.8	89	0.00	20.46

(#) = Out of Range
 P103017A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 03 11:09:41 2016

8.7.20

8

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICV4524
 Lab FileID: P103023.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
 Acq On : 2 Mar 2016 11:02 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	4.34
2 t	1,4-Dioxane	0.711	0.616	13.4	83	0.00	1.78
6 t	Indene	2.275	2.163	4.9	89	0.00	4.67
7 t	Cumene	3.287	3.030	7.8	89	0.00	3.43
13 t	Decane	1.057	0.961	9.1	91	0.00	4.16
18 t	Acetophenone	1.799	1.668	7.3	88	0.00	4.86
24 I	Naphthalene-d8	1.000	1.000	0.0	105	0.00	6.09
27 t	Quinoline	0.721	0.630	12.6	82	-0.01	6.63
40 t	2,3-Dichloroaniline	0.359	0.294	18.1	76	0.00	7.64
41 t	Caprolactam	0.133	0.121	9.0	80	-0.03	6.71
45 t	1-Methylnaphthalene	0.670	0.603	10.0	87	0.00	7.34
46 t	Dimethylnaphthalene	0.586	0.531	9.4	86	0.00	8.18
47 I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	8.82
48 t	Hexachlorocyclopentadiene	0.261	0.270	-3.4	84	0.00	7.46
53 t	Biphenyl	1.351	1.303	3.6	92	0.00	7.94
69 I	Phenanthrene-d10	1.000	1.000	0.0	96	0.00	11.18
82 t	Octadecane	0.403	0.414	-2.7	82	0.00	11.17
		AvgRF	CCRF	% Dev			
92 I	Perylene-d12	1.000	1.000	0.0	90	0.00	18.46
100 t	7,12-Dimethylbenz(a)anthr	0.482	0.516	-7.1	79	0.00	17.84

(#) = Out of Range
 P103017A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 03 11:22:22 2016

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4524-ICV4524
 Lab FileID: P103024.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D Vial: 15
 Acq On : 2 Mar 2016 11:31 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I Chrysene-d12	1.000	1.000	0.0	125	-0.01	15.90
	True	Calc.	% Drift			
89 t 3,3'-Dichlorobenzidine	50.000	43.268	13.5	105	0.00	15.91

(#) = Out of Range
 P103017A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 03 11:09:43 2016

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4538-CC4524
 Lab FileID: P103292.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4538\P103292.D Vial: 2
 Acq On : 14 Mar 2016 8:45 am Operator: linseyk
 Sample : cc4524-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	189	0.00	4.22
2 t	1,4-Dioxane	0.711	0.750	-5.5	197	-0.03	1.70
3 t	Pyridine	1.604	1.751	-9.2	189	-0.03	1.89
4 t	N-Nitrosodimethylamine	0.600	0.699	-16.5	207#	-0.03	1.86
5 S	2-Fluorophenol	1.392	1.513	-8.7	184	-0.02	2.85
6 t	Indene	2.275	2.340	-2.9	177	0.00	4.54
7 t	Cumene	3.287	3.370	-2.5	175	-0.02	3.32
8 S	Phenol-d5	1.699	1.811	-6.6	183	0.00	3.82
9 t	Phenol	1.753	1.868	-6.6	186	-0.03	3.84
10 t	Aniline	1.910	1.772	7.2	155	-0.02	3.82
11 t	bis(2-Chloroethyl)ether	1.290	1.305	-1.2	186	0.00	3.90
12 t	2-Chlorophenol	1.328	1.348	-1.5	177	-0.02	3.98
13 t	Decane	1.057	1.189	-12.5	199	0.00	4.04
14 t	1,3-Dichlorobenzene	1.488	1.459	1.9	173	-0.01	4.15
15 t	1,4-Dichlorobenzene	1.429	1.403	1.8	169	-0.01	4.24
16 t	Benzyl alcohol	0.790	0.847	-7.2	181	0.00	4.41
17 t	1,2-Dichlorobenzene	1.356	1.318	2.8	171	0.00	4.43
18 t	Acetophenone	1.799	1.852	-2.9	177	0.00	4.74
19 t	2-Methylphenol	1.130	1.158	-2.5	175	-0.02	4.59
20 t	2,2'-oxybis(1-Chloropropa	0.424	0.410	3.3	171	0.00	4.58
21 t	3&4-Methylphenol	1.233	1.292	-4.8	178	-0.01	4.80
22	n-Nitroso-di-n-propylamin	0.903	0.972	-7.6	185	0.00	4.76
23 t	Hexachloroethane	0.466	0.457	1.9	172	0.00	4.88
24 I	Naphthalene-d8	1.000	1.000	0.0	181	0.00	5.97
25 S	Nitrobenzene-d5	0.405	0.450	-11.1	186	-0.02	4.94
26 t	Nitrobenzene	0.389	0.424	-9.0	185	-0.02	4.97
27 t	Quinoline	0.721	0.739	-2.5	171	0.00	6.49
28 t	Isophorone	0.659	0.746	-13.2	182	-0.01	5.31
29 t	2-Nitrophenol	0.191	0.209	-9.4	173	-0.01	5.42
30 t	2,4-Dimethylphenol	0.324	0.338	-4.3	169	-0.02	5.54
31 t	Benzoic acid	0.251	0.282	-12.4	214#	-0.03	5.72
32 t	bis(2-Chloroethoxy)methan	0.416	0.453	-8.9	179	0.00	5.65
33 t	2,4-Dichlorophenol	0.283	0.303	-7.1	169	-0.02	5.80
34	2,6-Dichlorophenol	0.271	0.278	-2.6	166	0.00	6.11
35	1,3,5-Trichlorobenzene	0.317	0.318	-0.3	168	-0.01	5.44
36 t	1,2,4-Trichlorobenzene	0.313	0.313	0.0	171	0.00	5.89
37	1,2,3-Trichlorobenzene	0.288	0.288	0.0	173	0.00	6.22
38 t	Naphthalene	0.992	0.988	0.4	164	0.00	5.99
39 t	4-Chloroaniline	0.422	0.446	-5.7	170	0.00	6.10
40 t	2,3-Dichloroaniline	0.359	0.371	-3.3	171	0.03	7.50
41 t	Caprolactam	0.133	0.163	-22.6#	198	0.00	6.61

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4538-CC4524
 Lab FileID: P103292.D

42 t	Hexachlorobutadiene	0.156	0.151	3.2	164	0.00	6.21
43 t	4-Chloro-3-methylphenol	0.302	0.354	-17.2	182	0.00	6.93
44 t	2-Methylnaphthalene	0.550	0.552	-0.4	166	0.01	7.05
45 t	1-Methylnaphthalene	0.670	0.678	-1.2	167	0.02	7.20
46 t	Dimethylnaphthalene	0.586	0.591	-0.9	165	0.03	8.04
47 I	Acenaphthene-d10	1.000	1.000	0.0	180	0.00	8.68
48 t	Hexachlorocyclopentadiene	0.261	0.279	-6.9	165	-0.02	7.32
49 t	2,4,6-Trichlorophenol	0.313	0.334	-6.7	169	-0.02	7.53
50 t	2,4,5-Trichlorophenol	0.326	0.357	-9.5	177	-0.04	7.61
51 S	2-Fluorobiphenyl	1.214	1.201	1.1	167	-0.01	7.65
52 t	2-Chloronaphthalene	1.051	1.036	1.4	165	-0.01	7.80
53 t	Biphenyl	1.351	1.319	2.4	164	0.00	7.80
54 t	2-Nitroaniline	0.304	0.375	-23.4#	192	-0.01	8.00
55 t	Dimethylphthalate	1.215	1.260	-3.7	172	0.00	8.33
56 t	Acenaphthylene	1.678	1.653	1.5	160	0.00	8.44
57 t	2,6-Dinitrotoluene	0.259	0.290	-12.0	177	0.00	8.40
58 t	3-Nitroaniline	0.305	0.339	-11.1	171	0.00	8.65
59 t	Acenaphthene	1.043	1.035	0.8	163	0.00	8.73
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	47.631	4.7	192	0.00	8.82
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.166	0.175	-5.4	175	-0.05	9.06
62 t	Dibenzofuran	1.470	1.480	-0.7	164	0.00	9.01
		----- True	Calc.	% Drift	-----		
63 t	2,4-Dinitrotoluene	25.000	23.190	7.2	170	0.00	9.03
		----- AvgRF	CCRF	% Dev	-----		
64	2,3,4,6-Tetrachlorophenol	0.251	0.260	-3.6	169	0.00	9.24
65 t	Diethylphthalate	1.207	1.269	-5.1	173	0.01	9.46
66 t	Fluorene	1.200	1.208	-0.7	166	0.00	9.55
67 t	4-Chlorophenyl-phenylethe	0.539	0.528	2.0	162	0.00	9.59
68 t	4-Nitroaniline	0.306	0.324	-5.9	172	0.01	9.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	175	0.00	11.04
		----- True	Calc.	% Drift	-----		
70 t	4,6-Dinitro-2-methylpheno	25.000	24.755	1.0	182	-0.01	9.67
		----- AvgRF	CCRF	% Dev	-----		
71 t	n-Nitrosodiphenylamine	0.576	0.616	-6.9	168	-0.02	9.79
72 t	1,2-Diphenylhydrazine	0.789	0.900	-14.1	178	-0.01	9.84
73 S	2,4,6-Tribromophenol	0.094	0.101	-7.4	172	-0.02	9.94
74 t	4-Bromophenyl-phenylether	0.196	0.206	-5.1	171	0.00	10.36
75 t	Hexachlorobenzene	0.212	0.208	1.9	165	0.00	10.43
		----- True	Calc.	% Drift	-----		
76 t	Pentachlorophenol	50.000	49.785	0.4	187	-0.01	10.77
		----- AvgRF	CCRF	% Dev	-----		
77 t	Phenanthrene	1.026	1.036	-1.0	159	-0.01	11.07
78 t	Anthracene	1.029	1.072	-4.2	162	0.00	11.15
79 t	Carbazole	1.054	1.089	-3.3	158	0.00	11.45
80 t	Di-n-butylphthalate	1.228	1.404	-14.3	168	0.00	12.14
81 t	Fluoranthene	1.104	1.150	-4.2	161	0.00	13.07
82 t	Octadecane	0.403	0.446	-10.7	171	0.00	11.03

8.7.23

8

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4538-CC4524
 Lab FileID: P103292.D

83	I	Chrysene-d12	1.000	1.000	0.0	171	0.00	15.72
84	t	Pyrene	1.273	1.332	-4.6	158	-0.02	13.46
85	S	Terphenyl-d14	0.788	0.808	-2.5	160	-0.01	13.83
86	t	Butylbenzylphthalate	0.619	0.706	-14.1	171	0.00	14.82
			----- True	Calc.	% Drift	-----		
87		Butyl stearate	25.000	26.236	-4.9	190	0.00	15.05
			----- AvgRF	CCRF	% Dev	-----		
88	t	Benzo[a]anthracene	1.044	1.080	-3.4	160	0.00	15.70
			----- True	Calc.	% Drift	-----		
89	t	3,3'-Dichlorobenzidine	25.000	22.865	8.5	161	0.00	15.73
			----- AvgRF	CCRF	% Dev	-----		
90	t	Chrysene	1.033	1.034	-0.1	155	0.00	15.77
			----- True	Calc.	% Drift	-----		
91	t	bis(2-Ethylhexyl)phthalat	25.000	23.907	4.4	173	0.00	15.99
			----- AvgRF	CCRF	% Dev	-----		
92	I	Perylene-d12	1.000	1.000	0.0	174	-0.03	18.27
			----- True	Calc.	% Drift	-----		
93	t	Di-n-octylphthalate	25.000	23.385	6.5	174	-0.03	17.19
			----- AvgRF	CCRF	% Dev	-----		
94	t	Benzo[b]fluoranthene	1.138	1.191	-4.7	162	-0.04	17.64
95	t	Benzo[k]fluoranthene	1.096	1.144	-4.4	159	-0.05	17.69
96	t	Benzo[a]pyrene	1.004	1.077	-7.3	159	-0.04	18.17
97	t	Indeno[1,2,3-cd]pyrene	0.886	0.982	-10.8	164	-0.03	19.89
98	t	Dibenz(a,h)acridine	0.844	0.933	-10.5	169	-0.03	19.58
99	t	Dibenz[a,h]anthracene	0.955	1.048	-9.7	167	-0.03	19.94
100	t	7,12-Dimethylbenz(a)anthr	0.482	0.494	-2.5	153	-0.05	17.65
101	t	Benzo[g,h,i]perylene	1.015	1.080	-6.4	165	-0.04	20.25

(#) = Out of Range
 P103018A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 14 14:39:05 2016

8.7.23

8

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: EP4538-CC4514
 Lab FileID: P103293.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4538\P103293.D Vial: 3
 Acq On : 14 Mar 2016 9:14 am Operator: linseyk
 Sample : cc4514-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
102 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	139	-0.01	4.22
103	Benzaldehyde	1.202	1.160	3.5	137	-0.02	3.70
104 I	Phenanthrene-d10b	1.000	1.000	0.0	133	-0.02	11.03
105	Atrazine	0.204	0.227	-11.3	146	-0.02	10.69
106 I	Chrysene-d12b	1.000	1.000	0.0	141	-0.03	15.72
107	Benzidine	0.704	0.693	1.6	132	-0.04	13.38
108 I	Naphthalene-d8b	1.000	1.000	0.0	142	-0.02	5.96
109	Hydroquinone	0.367	0.390	-6.3	140	0.06	6.71
110 I	Acenaphthene-d10b	1.000	1.000	0.0	142	-0.02	8.67
111	1,2,4,5-Tetrachlorobenzen	0.549	0.554	-0.9	147	-0.04	7.32

(#) = Out of Range
 P103018A.D MP4524.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 14 14:39:06 2016

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4538-CC4515
 Lab FileID: P103294.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
102 I	1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	133	-0.07	4.22
103 M	2-Picoline	1.714	1.845	-7.6	145	-0.07	2.36
104	Pentachloroethane	0.573	0.597	-4.2	136	-0.08	3.88
105 M	Methyl methanesulfonate	0.847	0.884	-4.4	143	-0.07	2.67
106 M	N-Nitrosodiethylamine	0.698	0.733	-5.0	141	-0.08	3.03
107 M	N-Nitrosomethylethylamine	0.576	0.695	-20.7#	170	-0.07	2.43
108 M	Ethyl methanesulfonate	1.125	1.233	-9.6	148	-0.07	3.33
109 M	N-Nitrosopyrrolidine	0.401	0.482	-20.2#	168	-0.07	4.70
110 M	N-Nitrosomorpholine	0.639	0.750	-17.4	161	-0.06	4.76
111 M	o-Toluidine	2.046	1.950	4.7	134	-0.07	4.79
112 I	Naphthalene-d8A	1.000	1.000	0.0	127	-0.08	5.96
113 M	O,O,O-Triethyl phosphorot	0.158	0.170	-7.6	134	-0.08	5.61
114 M	N-Nitrosopiperidine	0.200	0.245	-22.5#	153	-0.09	5.17
115 M	A,A-Dimethylphenethylamin	0.718	0.690	3.9	123	-0.60#	5.81
116 M	Hexachloropropene	0.206	0.221	-7.3	131	-0.08	6.14
117 M	N-Nitrosodi-n-butylamine	0.253	0.285	-12.6	137	-0.07	6.64
118	p-Phenylenediamine	25.000	17.862	28.6#	84	-0.06	6.63
119 M	Safrole	0.262	0.286	-9.2	135	-0.07	6.95
120	Isosafrole	0.081	0.086	-6.2	128	-0.06	7.76
121	Acenaphthene-d10A	1.000	1.000	0.0	131	-0.09	8.67
122 M	Thionazin	0.159	0.167	-5.0	130	-0.08	9.58
123 M	Tetraethyl dithiopyrophos	0.134	0.152	-13.4	134	-0.08	10.11
124 M	Phorate	0.746	1.142	-53.1#	188	-0.08	10.28
125 M	Phenacetin	0.636	0.667	-4.9	125	-0.07	10.33
126 M	1,4-Naphthoquinone	0.284	0.269	5.3	110	-0.09	8.08
127 M	m-Dinitrobenzene	25.000	27.615	-10.5	150	-0.07	8.33
128 M	Pentachlorobenzene	0.437	0.427	2.3	126	-0.08	8.95
129 M	2-Naphthylamine	1.125	1.032	8.3	124	-0.08	9.26
130 M	1-Naphthylamine	0.945	0.887	6.1	124	-0.08	9.13
131 M	5-Nitro-o-toluidine	0.345	0.373	-8.1	127	-0.07	9.60
132 I	Phenanthrene-d10A	1.000	1.000	0.0	120	-0.09	11.03

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: EP4538-CC4515
 Lab FileID: P103294.D

133 M	Disulfoton	0.380	0.452	-18.9	133	-0.08	11.12
	----- True	Calc.	% Drift	-----			
134 M	Dinoseb	25.000	25.016	-0.1	130	-0.08	11.11
	----- AvgRF	CCRF	% Dev	-----			
135 M	Dimethoate	0.305	0.398	-30.5#	138	-0.09	10.53
136 M	4-Aminobiphenyl	0.748	0.833	-11.4	129	-0.08	10.78
137 M	Methyl parathion	0.200	0.257	-28.5#	133	-0.08	11.72
138 M	Parathion	0.149	0.193	-29.5#	129	-0.09	12.40
139 M	Diphenylamine	1.098	1.269	-15.6	132	-0.09	9.79
140 M	Isodrin	0.127	0.142	-11.8	129	-0.10	12.80
141 M	Diallate	0.271	0.309	-14.0	134	-0.09	10.27
142 M	Pentachloronitrobenzene	0.033	0.039#	-18.2	133	-0.09	10.78
143 M	Pronamide	0.295	0.354	-20.0	125	-0.08	10.94
	----- True	Calc.	% Drift	-----			
144 M	4-Nitroquinoline 1-oxide	100.000	82.350	17.7	99	-0.09	12.38
	----- AvgRF	CCRF	% Dev	-----			
145 M	Methapyriline	0.287	0.437	-52.3#	153	-0.14	12.58
	----- True	Calc.	% Drift	-----			
146 M	sym-Trinitrobenzene	25.000	28.135	-12.5	147	-0.05	10.26
	----- AvgRF	CCRF	% Dev	-----			
147 I	Chrysene-d12A	1.000	1.000	0.0	126	-0.11	15.72
	----- True	Calc.	% Drift	-----			
148	Aramite	50.000	49.802	0.4	126	-0.22	14.03
	----- AvgRF	CCRF	% Dev	-----			
149 M	p-(Dimethylamine)azobenze	0.404	0.470	-16.3	125	-0.23	14.10
	----- True	Calc.	% Drift	-----			
150	Kepone	150.000	113.405	24.4#	96	-0.24	14.72
151 M	Famphur	150.000	171.425	-14.3	129	-0.04	14.68
	----- AvgRF	CCRF	% Dev	-----			
152 M	2-Acetylaminofluorene	0.489	0.553	-13.1	123	-0.23	15.19
153 M	3,3'-Dimethylbenzidine	0.374	0.317	15.2	115	-0.05	14.74
154 M	Chlorobenzilate	0.302	0.354	-17.2	130	-0.22	14.23
155 I	Perylene-d12A	1.000	1.000	0.0	115	-0.12	18.27
156 M	4,4-Methylene-bis-(2-chlo	0.125	0.143	-14.4	117	-0.12	15.75
	----- True	Calc.	% Drift	-----			
157	Hexachlorophene	125.000	45.283	63.8#	17	-0.11	18.05
	----- AvgRF	CCRF	% Dev	-----			
158	3-Methylcholanthrene	0.218	0.274	-25.7#	130	-0.12	18.77

(#) = Out of Range

P103018A.D MP4524AP9.M

SPCC's out = 0 CCC's out = 0

Mon Mar 14 14:41:27 2016

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103301.D Vial: 11
 Acq On : 14 Mar 2016 2:58 pm Operator: linseyk
 Sample : jcl15796-1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:50:31 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	190604	40.00	ppm	-0.07
24) Naphthalene-d8	5.96	136	695429	40.00	ppm	-0.08
47) Acenaphthene-d10	8.67	164	404260	40.00	ppm	-0.09
69) Phenanthrene-d10	11.03	188	621699	40.00	ppm	-0.09
83) Chrysene-d12	15.71	240	587516	40.00	ppm	-0.11
92) Perylene-d12	18.27	264	475393	40.00	ppm	-0.12
102) 1,4-Dichlorobenzene-d4A	4.22	152	190604	40.00	ppm	-0.07
112) Naphthalene-d8A	5.96	136	695429	40.00	ppm	-0.08
121) Acenaphthene-d10A	8.67	164	404260	40.00	ppm	-0.09
132) Phenanthrene-d10A	11.03	188	621699	40.00	ppm	-0.09
147) Chrysene-d12A	15.71	240	587516	40.00	ppm	-0.11
155) Perylene-d12A	18.27	264	475393	40.00	ppm	-0.12
159) 1,4-Dichlorobenzene-d4b	4.22	152	190604	40.00	ppm	-0.07
161) Phenanthrene-d10b	11.03	188	621699	40.00	ppm	-0.09
163) Chrysene-d12b	15.71	240	587516	40.00	ppm	-0.11
165) Naphthalene-d8b	5.96	136	695429	40.00	ppm	-0.08
167) Acenaphthene-d10b	8.67	164	404260	40.00	ppm	-0.09
169) Naphthalene-d8c	5.96	136	695429	40.00	ppm	-0.08
174) 1,4-Dichlorobenzene-d4a	4.22	152	190604	40.00	ppm	-0.07
176) Chrysene-d12c	15.71	240	587516	40.00	ppm	-0.11
178) Chrysene-d12d	15.71	240	587516	40.00	ppm	-0.11
180) Naphthalene-d8a	5.96	136	695429	40.00	ppm	-0.08

System Monitoring Compounds

5) 2-Fluorophenol	2.85	112	139525	21.03	ppm	0.00
Spiked Amount	50.000		Recovery	=	42.06%	
8) Phenol-d5	3.83	99	122824	15.17	ppm	-0.08
Spiked Amount	50.000		Recovery	=	30.34%	
25) Nitrobenzene-d5	4.94	82	230759	32.78	ppm	-0.08
Spiked Amount	50.000		Recovery	=	65.56%	
51) 2-Fluorobiphenyl	7.65	172	400277	32.64	ppm	-0.09
Spiked Amount	50.000		Recovery	=	65.28%	
73) 2,4,6-Tribromophenol	9.93	330	59014	40.60	ppm	-0.10
Spiked Amount	50.000		Recovery	=	81.20%	
85) Terphenyl-d14	13.83	244	367965	31.81	ppm	-0.11
Spiked Amount	50.000		Recovery	=	63.62%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.70	88	39365	11.62	ppm	98
78) Anthracene	11.14	178	266737	16.68	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103301.D MP4524AP9.M Tue Mar 15 14:52:02 2016

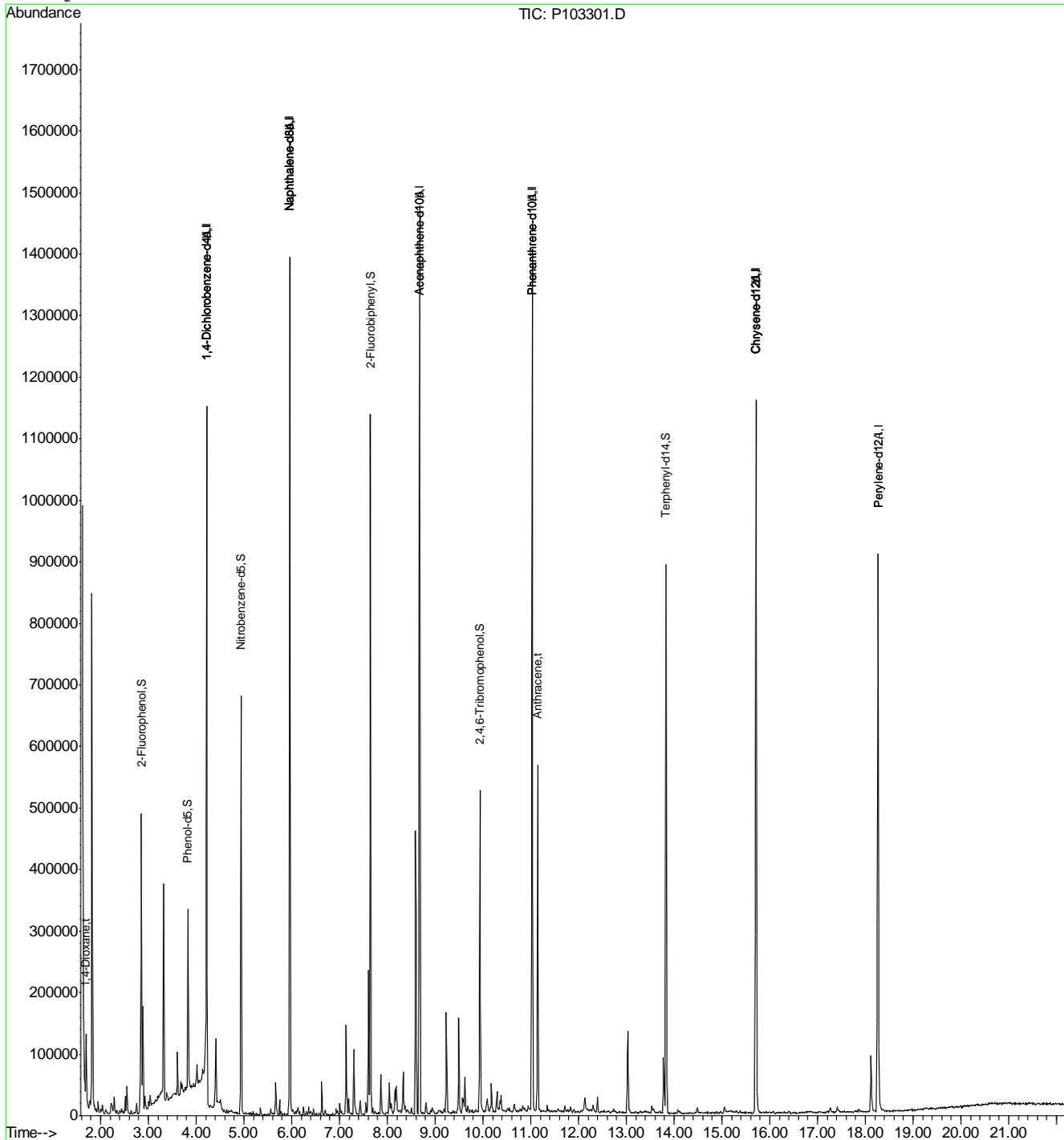
Quantitation Report (QT Reviewed)

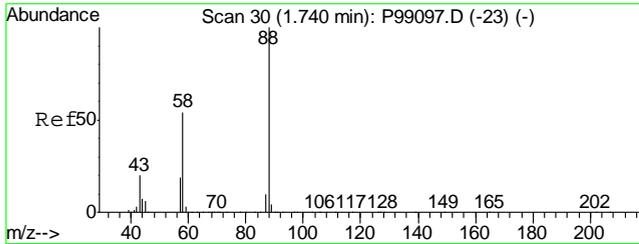
Data File : C:\MSDCHEM\1\DATA\EP4538\P103301.D
Acq On : 14 Mar 2016 2:58 pm
Sample : jcl15796-1
Misc : op92023,ep4538,1000
MS Integration Params: rteint.p
Quant Time: Mar 15 14:51 2016

Vial: 11
Operator: linseyk
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4524AP9.RES

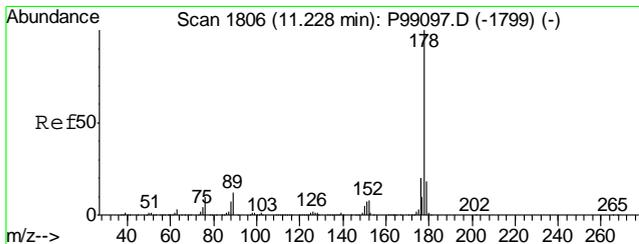
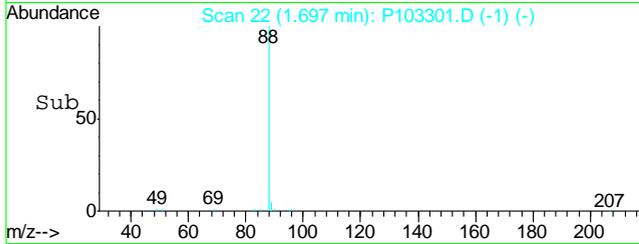
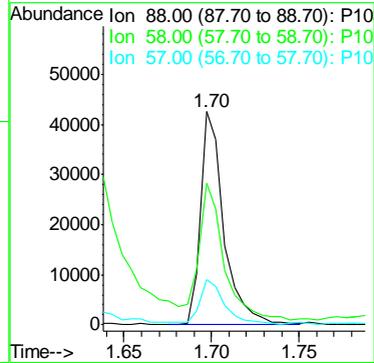
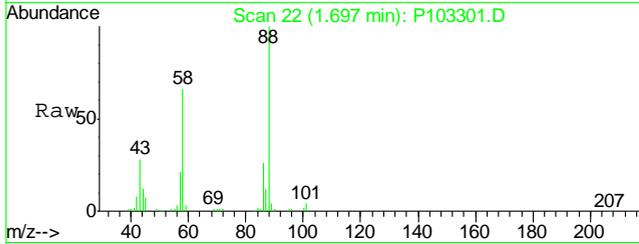
Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 12:43:35 2016
Response via : Initial Calibration





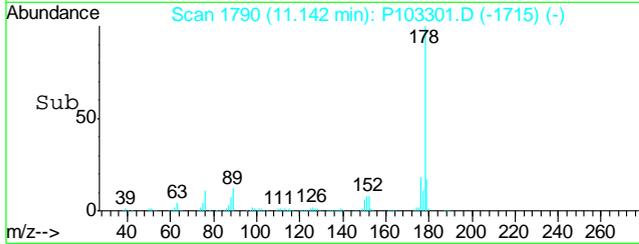
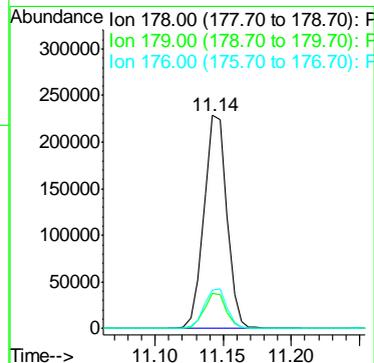
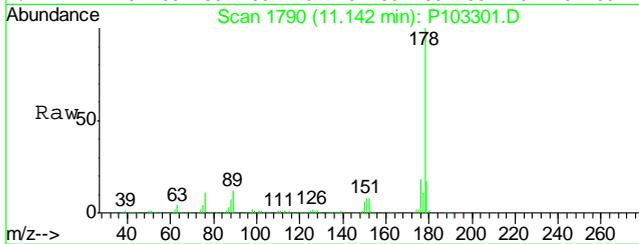
#2
 1,4-Dioxane
 Concen: 11.62 ppm
 RT: 1.70 min Scan# 22
 Delta R.T. -0.06 min
 Lab File: P103301.D
 Acq: 14 Mar 2016 2:58 pm

Tgt Ion	Resp	Lower	Upper
88	39365		
58	59.5	31.0	91.0
57	19.9	0.0	51.2



#78
 Anthracene
 Concen: 16.68 ppm
 RT: 11.14 min Scan# 1790
 Delta R.T. -0.10 min
 Lab File: P103301.D
 Acq: 14 Mar 2016 2:58 pm

Tgt Ion	Resp	Lower	Upper
178	266737		
179	16.6	0.0	46.0
176	18.2	0.0	48.9



9.1.1
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103302.D Vial: 12
 Acq On : 14 Mar 2016 3:27 pm Operator: linseyk
 Sample : jcl5796-2 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 15:49:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	179830	40.00	ppm	0.00
24) Naphthalene-d8	5.96	136	645963	40.00	ppm	0.00
47) Acenaphthene-d10	8.67	164	380376	40.00	ppm	0.00
69) Phenanthrene-d10	11.03	188	576917	40.00	ppm	0.00
83) Chrysene-d12	15.72	240	547524	40.00	ppm	0.00
92) Perylene-d12	18.27	264	437856	40.00	ppm	-0.04
102) 1,4-Dichlorobenzene-d4b	4.22	152	179830	40.00	ppm	-0.01
104) Phenanthrene-d10b	11.03	188	576917	40.00	ppm	-0.02
106) Chrysene-d12b	15.72	240	547524	40.00	ppm	-0.03
108) Naphthalene-d8b	5.96	136	645963	40.00	ppm	-0.02
110) Acenaphthene-d10b	8.67	164	380376	40.00	ppm	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol	2.86	112	35932m	5.74	ppm	0.00
Spiked Amount 50.000			Recovery =	11.48%		
8) Phenol-d5	3.83	99	119744	15.68	ppm	0.02
Spiked Amount 50.000			Recovery =	31.36%		
25) Nitrobenzene-d5	4.94	82	212950	32.56	ppm	-0.02
Spiked Amount 50.000			Recovery =	65.12%		
51) 2-Fluorobiphenyl	7.65	172	391919	33.96	ppm	-0.02
Spiked Amount 50.000			Recovery =	67.92%		
73) 2,4,6-Tribromophenol	9.93	330	58541	43.40	ppm	-0.02
Spiked Amount 50.000			Recovery =	86.80%		
85) Terphenyl-d14	13.83	244	375785	34.86	ppm	-0.01
Spiked Amount 50.000			Recovery =	69.72%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.70	88	62797	19.65	ppm	98
18) Acetophenone	4.74	105	59668	7.38	ppm	91
30) 2,4-Dimethylphenol	5.54	107	76052	14.55	ppm	96
78) Anthracene	11.14	178	66122	4.46	ppm	96
103) Benzaldehyde	3.70	105	10936	2.02	ppm	95

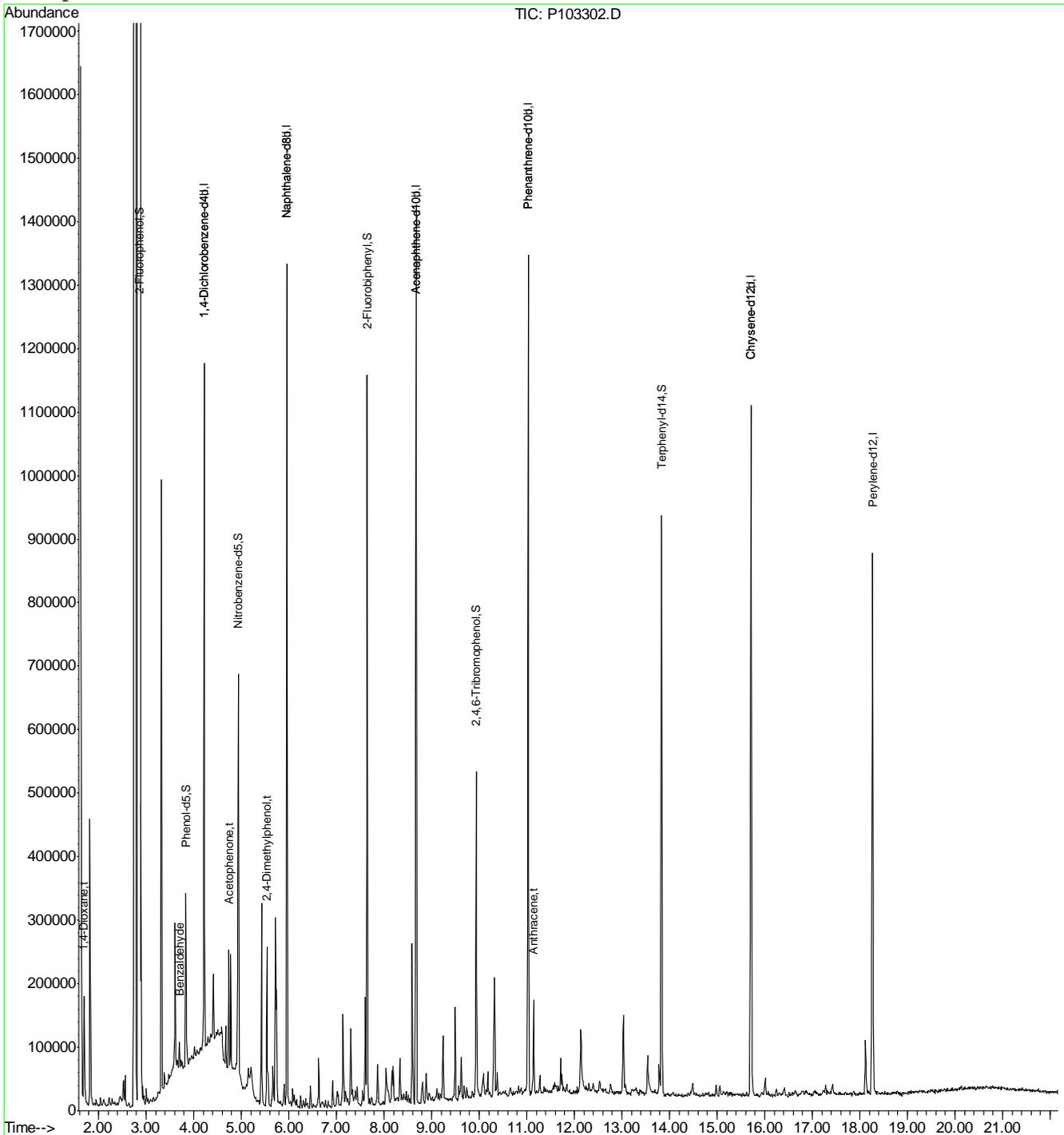
9.12
9

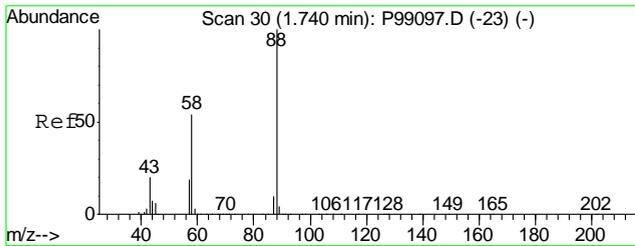
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103302.D MP4524.M Tue Mar 15 14:37:52 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103302.D Vial: 12
Acq On : 14 Mar 2016 3:27 pm Operator: linseyk
Sample : jcl5796-2 Inst : MSP
Misc : op92023,ep4538,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 15 14:37 2016 Quant Results File: MP4524.RES

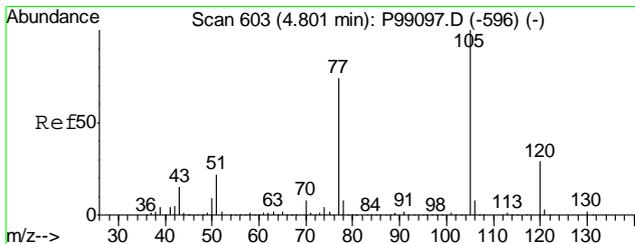
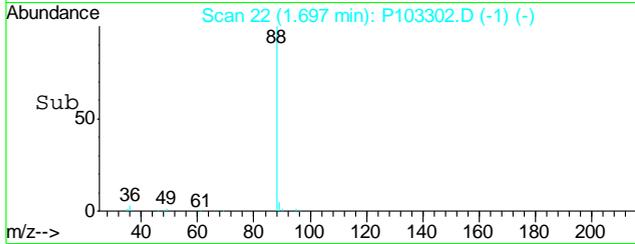
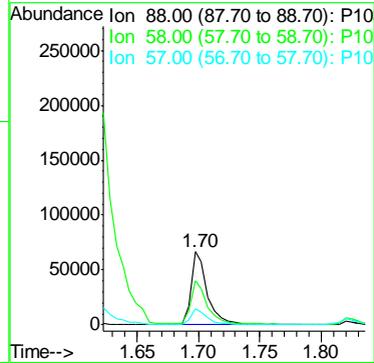
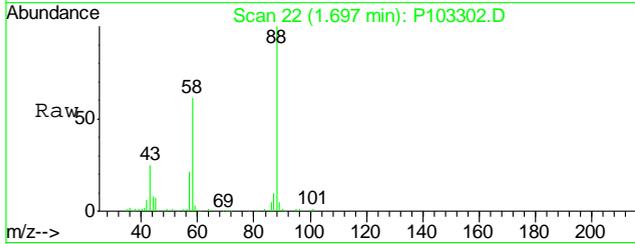
Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration





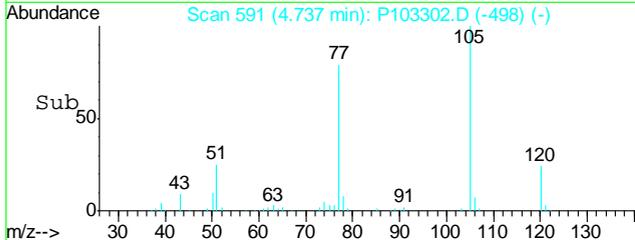
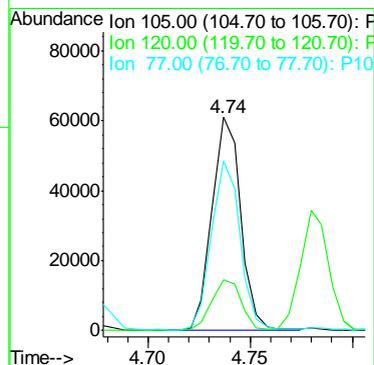
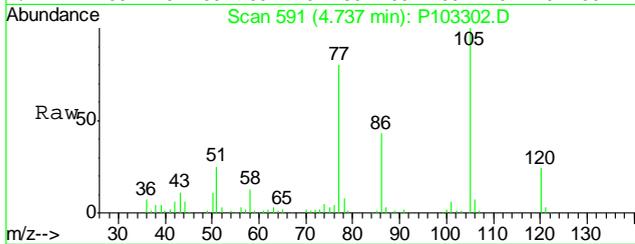
#2
 1,4-Dioxane
 Concen: 19.65 ppm
 RT: 1.70 min Scan# 22
 Delta R.T. -0.03 min
 Lab File: P103302.D
 Acq: 14 Mar 2016 3:27 pm

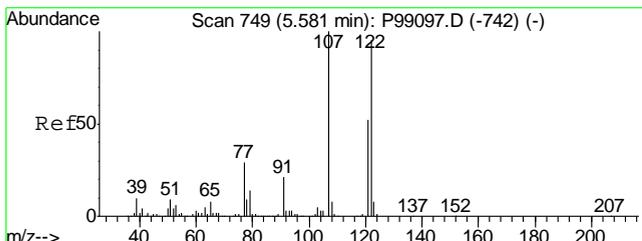
Tgt Ion	Resp	Lower	Upper
88	62797		
58	59.2	31.0	91.0
57	21.0	0.0	51.2



#18
 Acetophenone
 Concen: 7.38 ppm
 RT: 4.74 min Scan# 591
 Delta R.T. -0.00 min
 Lab File: P103302.D
 Acq: 14 Mar 2016 3:27 pm

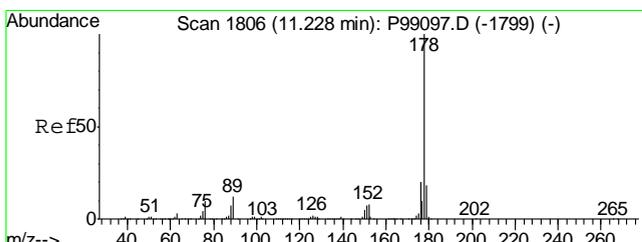
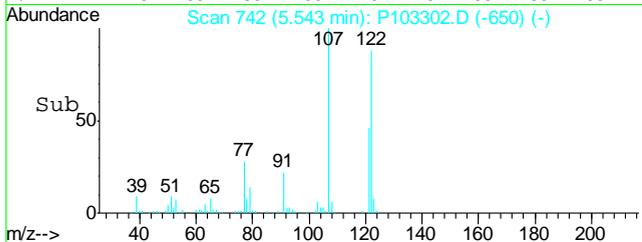
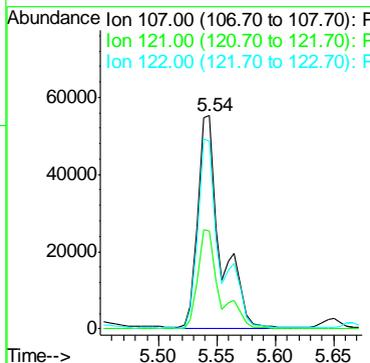
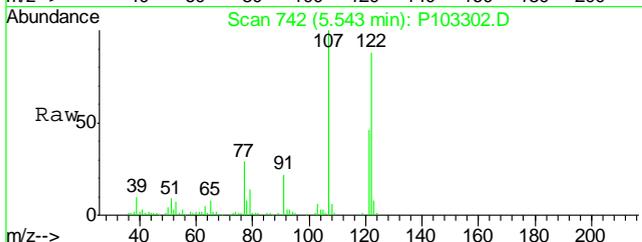
Tgt Ion	Resp	Lower	Upper
105	59668		
120	9.3	0.0	56.8
77	79.2	49.6	109.6





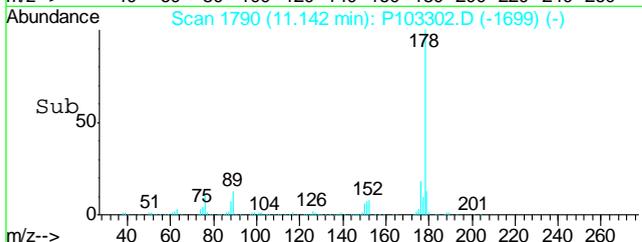
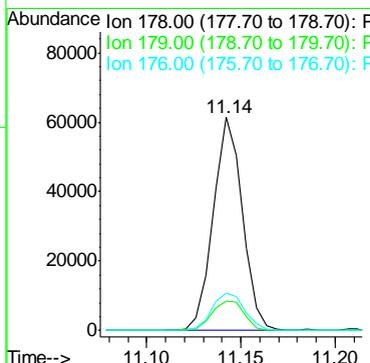
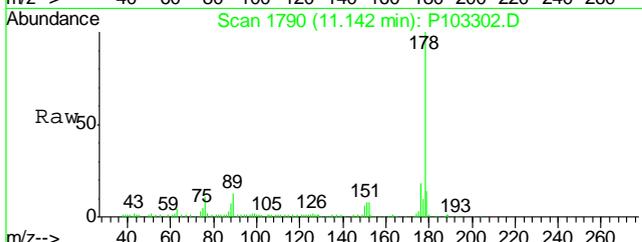
#30
 2,4-Dimethylphenol
 Concen: 14.55 ppm
 RT: 5.54 min Scan# 742
 Delta R.T. -0.01 min
 Lab File: P103302.D
 Acq: 14 Mar 2016 3:27 pm

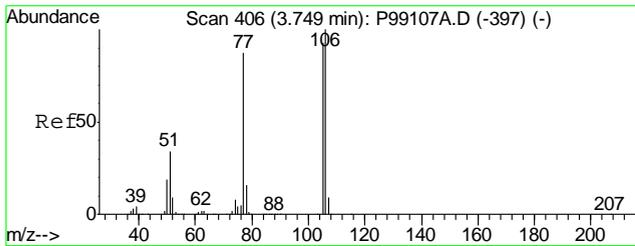
Tgt Ion	Resp	Lower	Upper
107	76052		
107	100		
121	46.1	18.4	78.4
122	87.9	61.4	121.4



#78
 Anthracene
 Concen: 4.46 ppm
 RT: 11.14 min Scan# 1790
 Delta R.T. -0.01 min
 Lab File: P103302.D
 Acq: 14 Mar 2016 3:27 pm

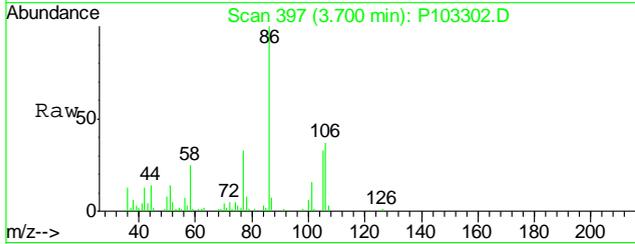
Tgt Ion	Resp	Lower	Upper
178	66122		
178	100		
179	13.4	0.0	46.0
176	17.6	0.0	48.9



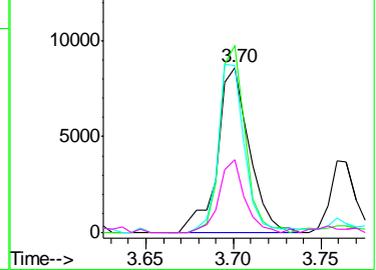
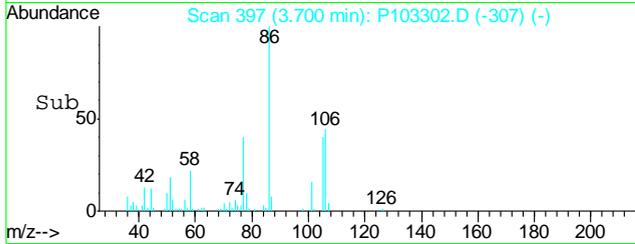


#103
 Benzaldehyde
 Concen: 2.02 ppm
 RT: 3.70 min Scan# 397
 Delta R.T. -0.02 min
 Lab File: P103302.D
 Acq: 14 Mar 2016 3:27 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
106	112.3	74.8	134.8
77	100.1	68.0	128.0
51	44.1	9.4	69.4



Abundance Ion 105.00 (104.70 to 105.70): F
 Ion 106.00 (105.70 to 106.70): F
 Ion 77.00 (76.70 to 77.70): P10
 Ion 51.00 (50.70 to 51.70): P10



Manual Integration Approval Summary

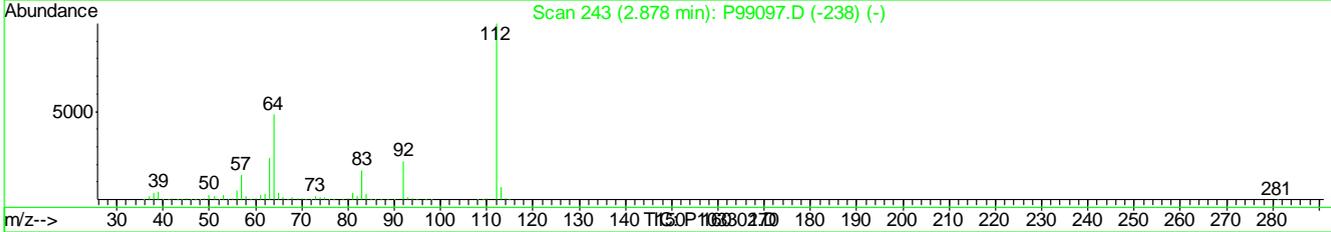
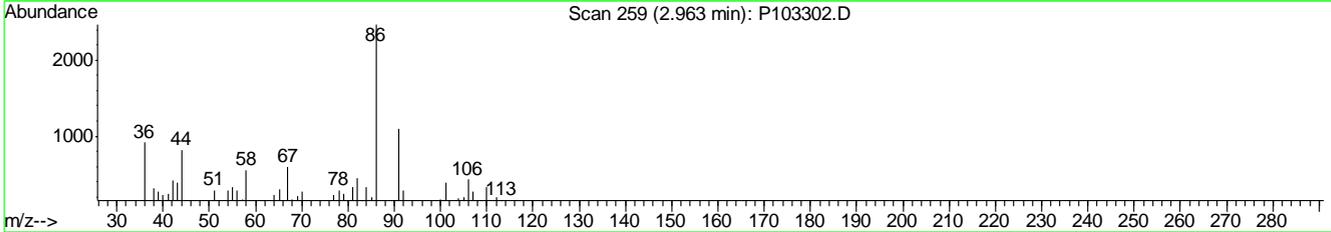
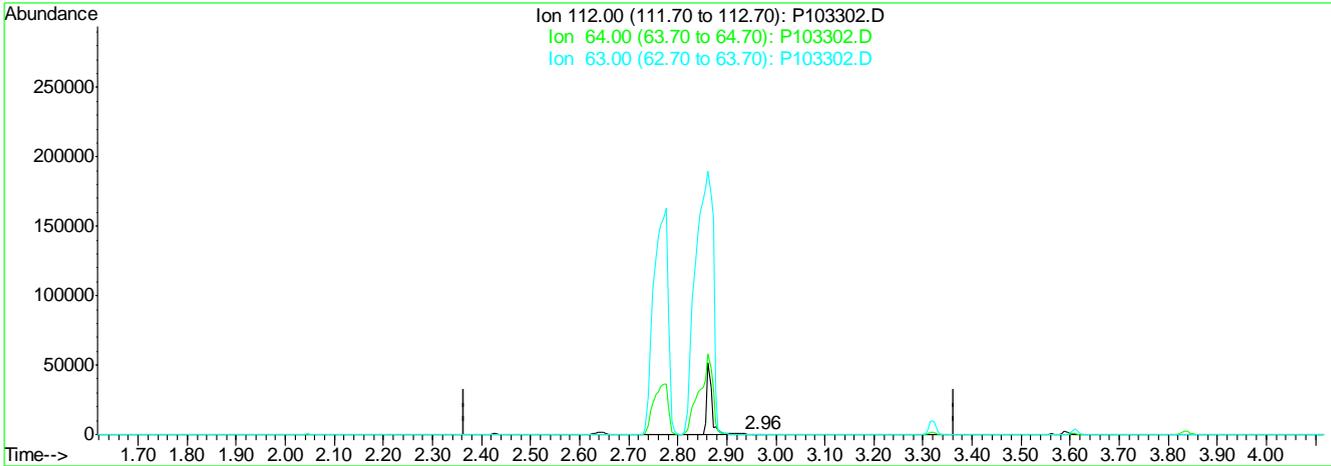
Sample Number: JC15796-2 Method: SW846 8270D
Lab FileID: P103302.D Analyst approved: 03/15/16 14:44 Linsey Kirschmann
Injection Time: 03/14/16 15:27 Supervisor approved: 03/23/16 11:15 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
2-Fluorophenol	367-12-4		2.86	Poor instrument integration

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103302.D Vial: 12
 Acq On : 14 Mar 2016 3:27 pm Operator: linseyk
 Sample : jc15796-2 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:36 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 09:15:56 2016
 Response via : Multiple Level Calibration



(5) 2-Fluorophenol (S)

2.96min 0.03ppm

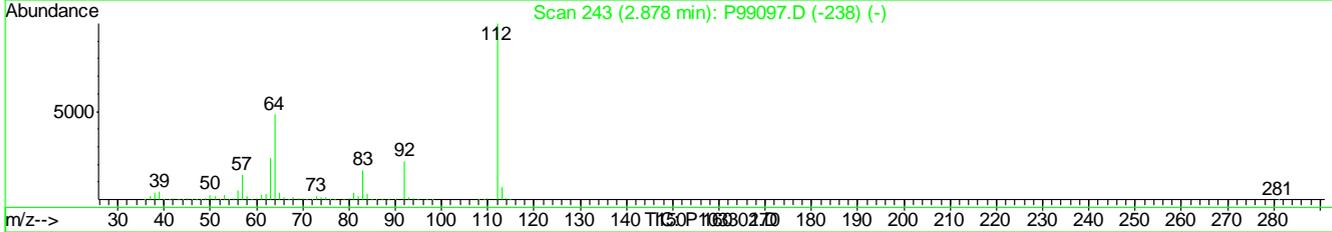
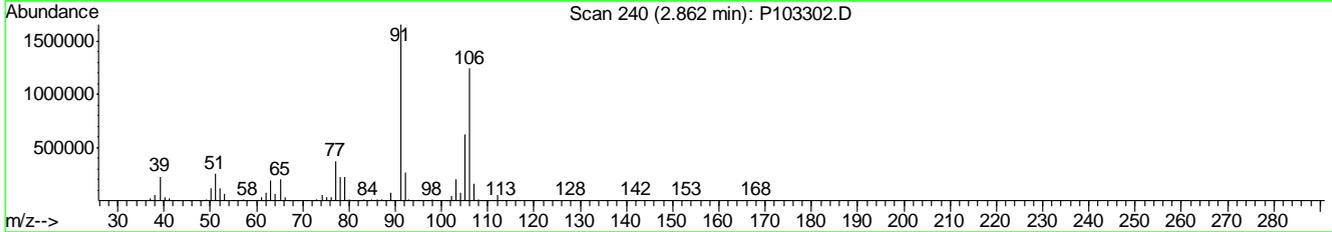
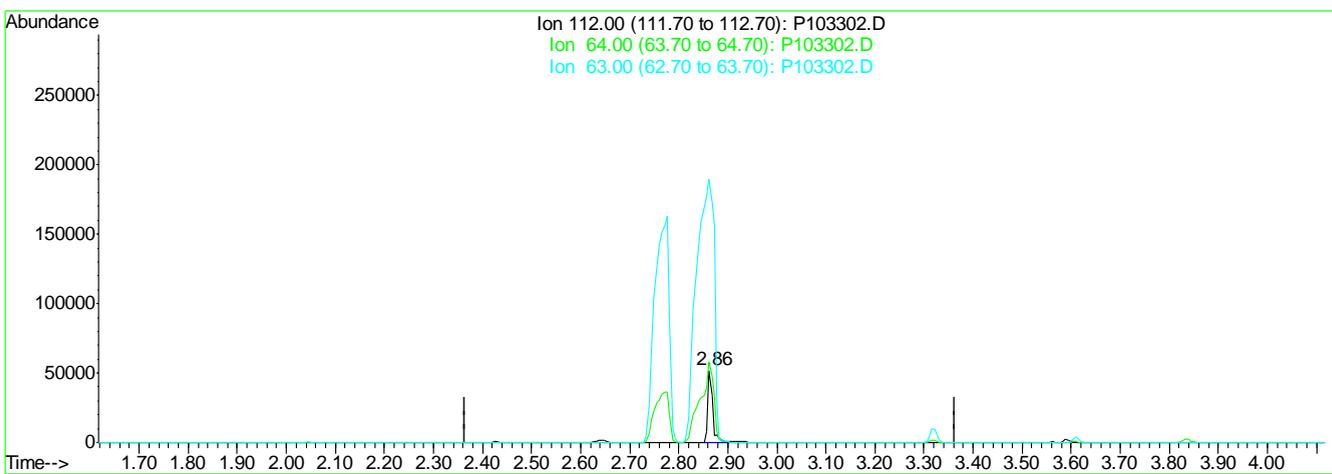
response 179

Ion	Exp%	Act%
112.00	100	100
64.00	49.90	57.71
63.00	26.10	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103302.D Vial: 12
Acq On : 14 Mar 2016 3:27 pm Operator: linseyk
Sample : jc15796-2 Inst : MSP
Misc : op92023,ep4538,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 15 14:36 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Multiple Level Calibration



(5) 2-Fluorophenol (S)

2.86min 5.74ppm m

response 35932

Table with 3 columns: Ion, Exp%, Act%. Rows include 112.00, 64.00, 63.00, and 0.00.

9.1.2.3 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103303.D Vial: 13
Acq On : 14 Mar 2016 3:55 pm Operator: linseyk
Sample : jcl5796-3 Inst : MSP
Misc : op92023,ep4538,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 16:17:58 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 11 22:35:39 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Table with 7 columns: Internal Standards, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include 1) 1,4-Dichlorobenzene-d4, 24) Naphthalene-d8, 47) Acenaphthene-d10, 69) Phenanthrene-d10, 83) Chrysene-d12, 92) Perylene-d12, 102) 1,4-Dichlorobenzene-d4b, 104) Phenanthrene-d10b, 106) Chrysene-d12b, 108) Naphthalene-d8b, 110) Acenaphthene-d10b.

System Monitoring Compounds table with 7 columns: Internal Standards, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include 5) 2-Fluorophenol, 8) Phenol-d5, 25) Nitrobenzene-d5, 51) 2-Fluorobiphenyl, 73) 2,4,6-Tribromophenol, 85) Terphenyl-d14.

Target Compounds Qvalue

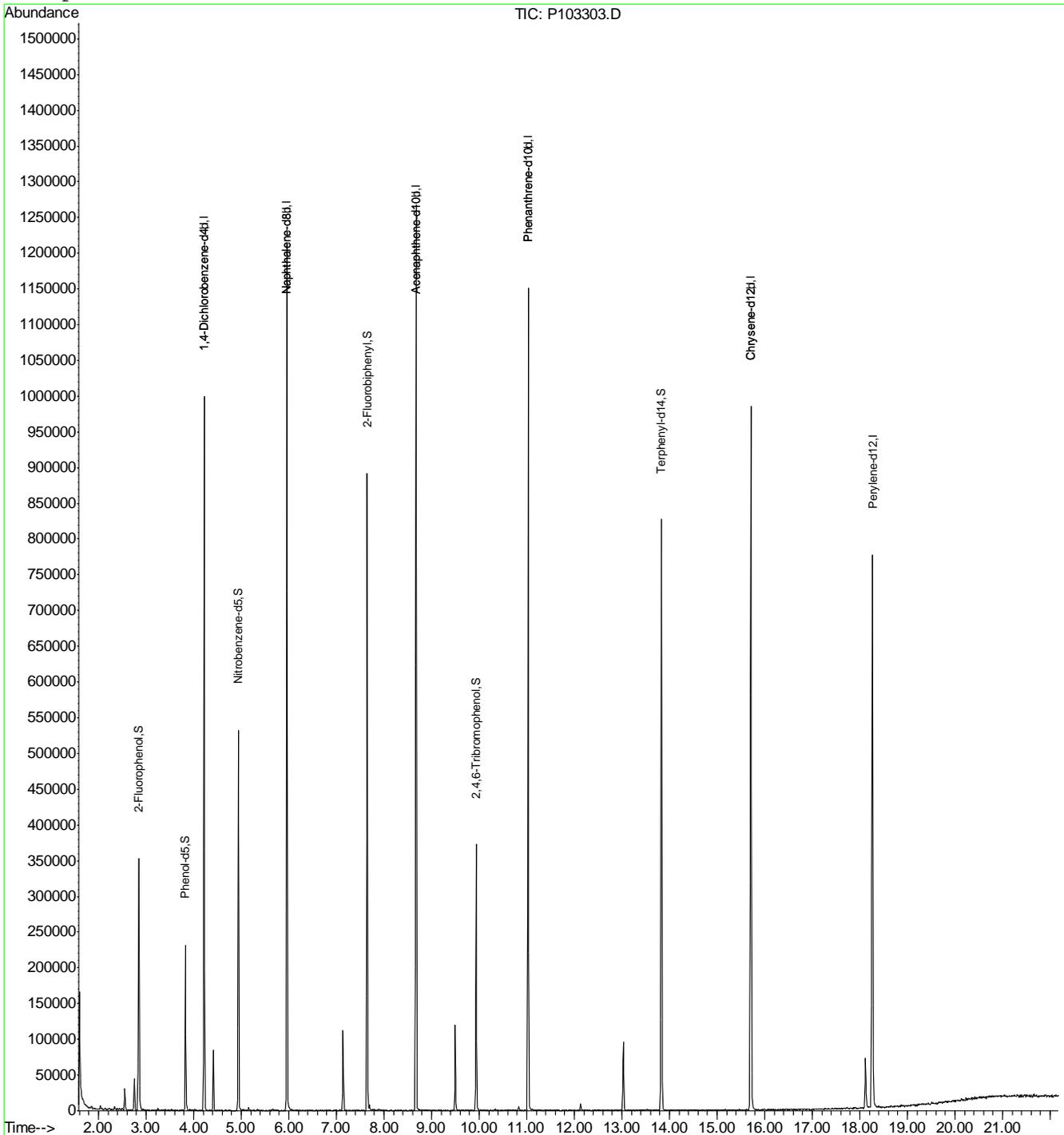
9.13 9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P103303.D MP4524.M Tue Mar 15 14:38:45 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103303.D Vial: 13
Acq On : 14 Mar 2016 3:55 pm Operator: linseyk
Sample : jcl5796-3 Inst : MSP
Misc : op92023,ep4538,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 15 14:38 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64056.D
 Acq On : 14 Mar 2016 5:04 pm
 Operator : linseyk
 Sample : jcl15796-1
 Misc : op92023a,e4m2839,1000
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 15 12:55:41 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration

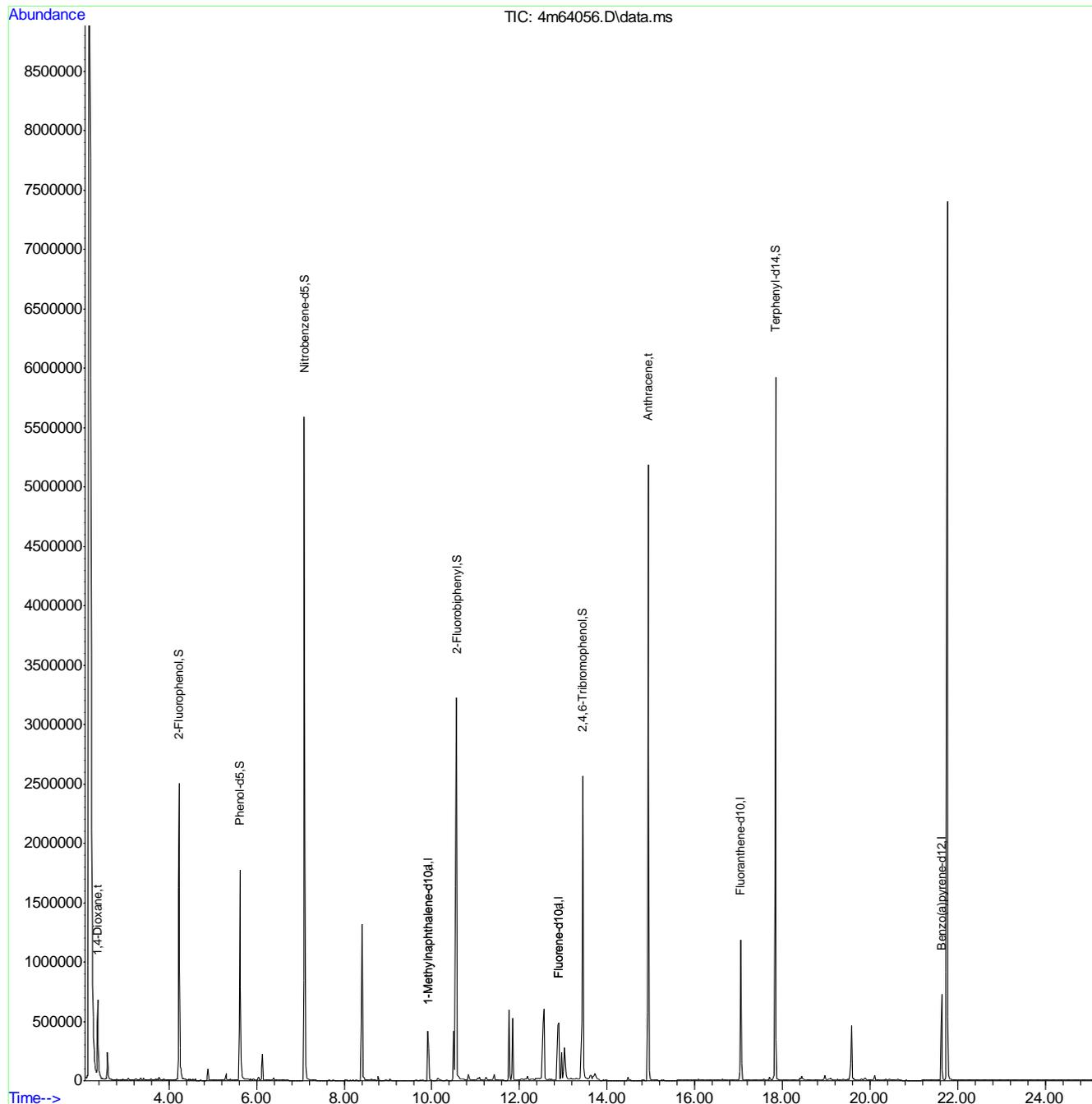
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.923	152	381831	4.00	ppm	0.05
12) Fluorene-d10	12.894	176	721464	4.00	ppm	0.05
22) Fluoranthene-d10	17.053	212	1229889	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.642	264	891779	4.00	ppm	0.01
35) 1-Methylnaphthalene-d10a	9.923	152	381831	4.00	ppm	# 0.05
38) Fluorene-d10a	12.894	176	721464	4.00	ppm	0.05
System Monitoring Compounds						
2) 2-Fluorophenol	4.231	112	1841926	21.60	ppm	-0.01
Spiked Amount	50.000	Range 11 - 58	Recovery =	43.20%		
3) Phenol-d5	5.622	99	2070317	15.94	ppm	0.06
Spiked Amount	50.000		Recovery =	31.88%		
6) Nitrobenzene-d5	7.092	82	3765857	39.09	ppm	0.05
Spiked Amount	50.000		Recovery =	78.18%		
11) 2-Fluorobiphenyl	10.567	172	5277149	33.03	ppm	0.05
Spiked Amount	50.000		Recovery =	66.06%		
17) 2,4,6-Tribromophenol	13.443	330	1799341	56.19	ppm	0.05
Spiked Amount	50.000		Recovery =	112.38%		
25) Terphenyl-d14	17.844	244	6666821	33.65	ppm	0.00
Spiked Amount	50.000		Recovery =	67.30%		
Target Compounds						
21) Anthracene	14.938	178	6015144	18.70	ppm	Qvalue 97
36) 1,4-Dioxane	2.378	88	487169	13.89	ppm	82

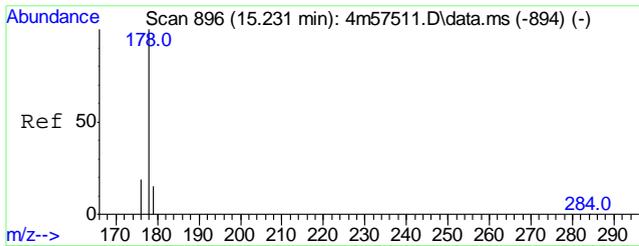
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64056.D
 Acq On : 14 Mar 2016 5:04 pm
 Operator : linseyk
 Sample : jcl15796-1
 Misc : op92023a,e4m2839,1000
 ALS Vial : 17 Sample Multiplier: 1

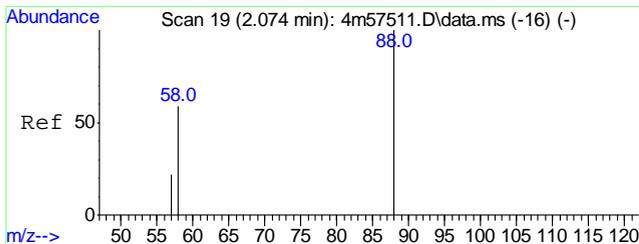
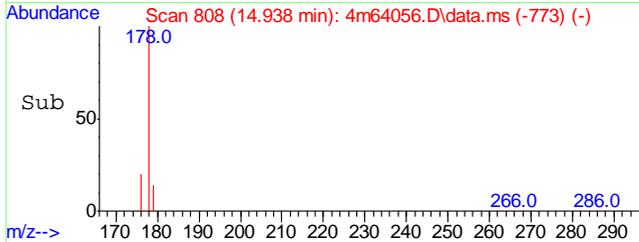
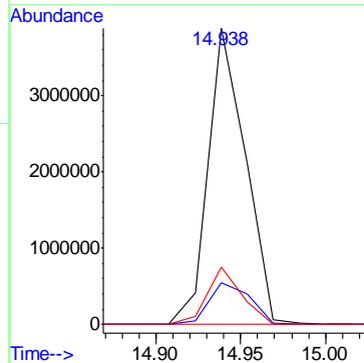
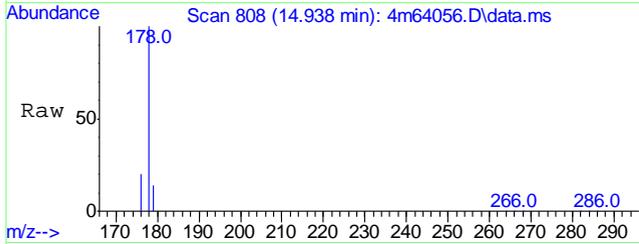
Quant Time: Mar 15 12:55:41 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration





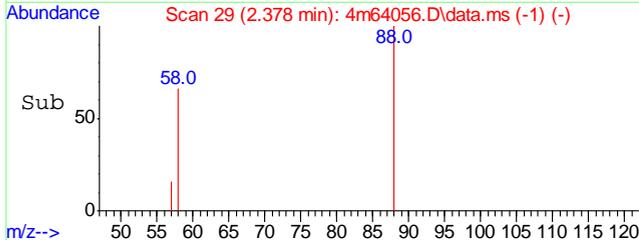
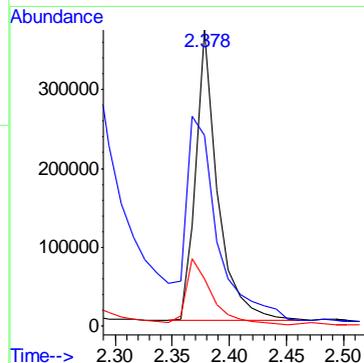
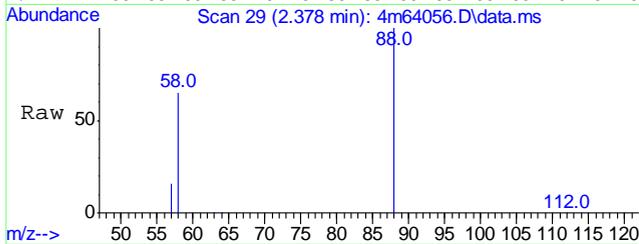
#21
 Anthracene
 Concen: 18.70 ppm
 RT: 14.938 min Scan# 808
 Delta R.T. 0.046 min
 Lab File: 4m64056.D
 Acq: 14 Mar 2016 5:04 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.0	0.0	44.8
176	19.5	0.0	47.7



#36
 1,4-Dioxane
 Concen: 13.89 ppm
 RT: 2.378 min Scan# 29
 Delta R.T. -0.031 min
 Lab File: 4m64056.D
 Acq: 14 Mar 2016 5:04 pm

Tgt Ion	Ratio	Lower	Upper
88	100		
58	57.7	56.2	96.2
57	15.4	0.0	35.9



9.1.4
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64057.D
 Acq On : 14 Mar 2016 5:34 pm
 Operator : linseyk
 Sample : jcl15796-2
 Misc : op92023a,e4m2839,1000
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 15 12:56:24 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration

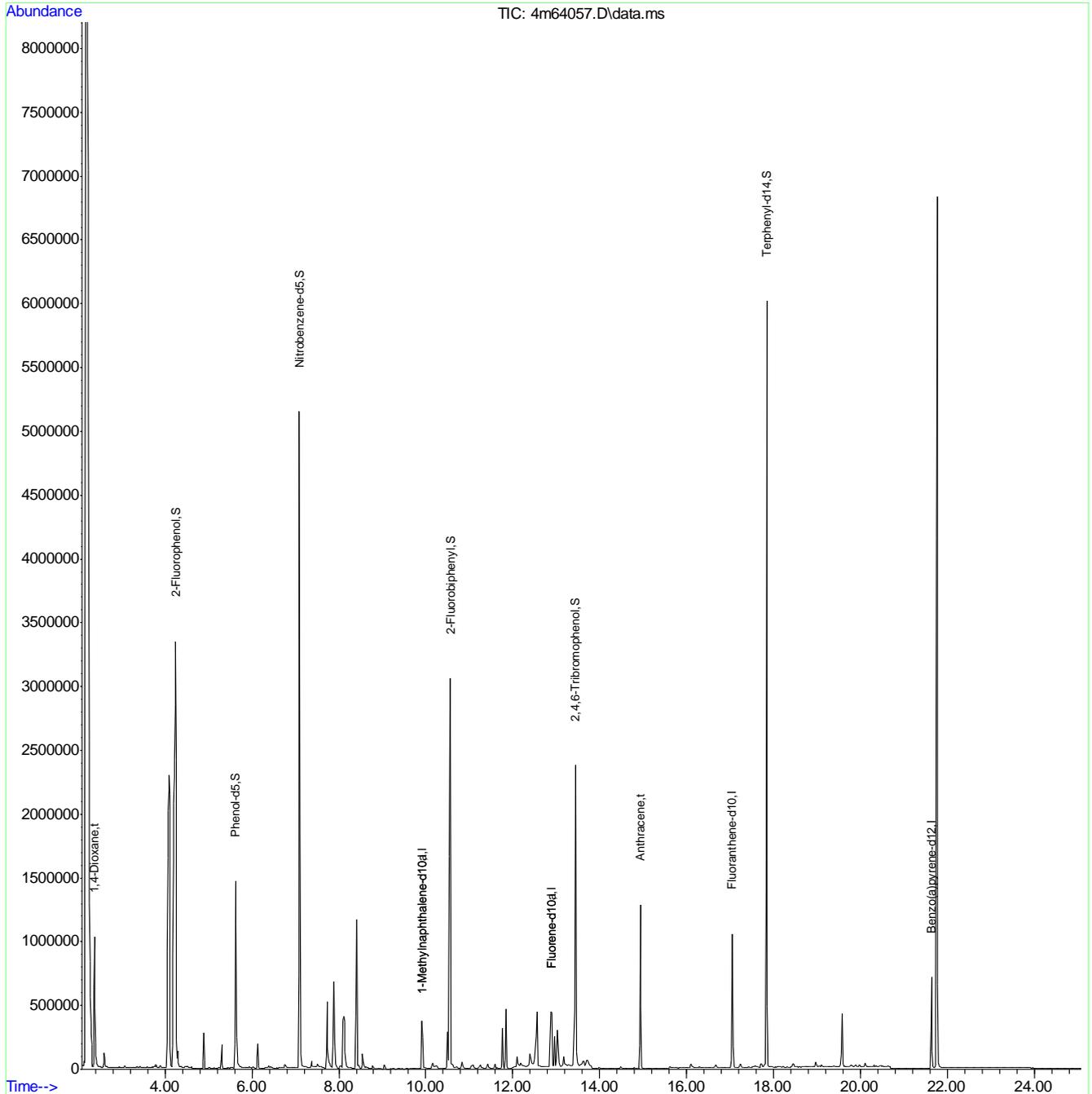
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.923	152	350721	4.00	ppm	0.05
22) Fluorene-d10	12.894	176	655610	4.00	ppm	0.05
22) Fluoranthene-d10	17.053	212	1118656	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.642	264	787774	4.00	ppm	0.01
35) 1-Methylnaphthalene-d10a	9.923	152	350721	4.00	ppm	# 0.05
38) Fluorene-d10a	12.894	176	655610	4.00	ppm	0.05
System Monitoring Compounds						
2) 2-Fluorophenol	4.242	112	671011	8.57	ppm	0.00
Spiked Amount	50.000	Range 11 - 58	Recovery =	17.14%		
3) Phenol-d5	5.622	99	2010318	16.86	ppm	0.05
Spiked Amount	50.000		Recovery =	33.72%		
6) Nitrobenzene-d5	7.092	82	3489981	39.44	ppm	0.05
Spiked Amount	50.000		Recovery =	78.88%		
11) 2-Fluorobiphenyl	10.567	172	5104058	34.78	ppm	0.05
Spiked Amount	50.000		Recovery =	69.56%		
17) 2,4,6-Tribromophenol	13.443	330	1641440	56.41	ppm	0.05
Spiked Amount	50.000		Recovery =	112.82%		
25) Terphenyl-d14	17.844	244	6646604	36.88	ppm	0.00
Spiked Amount	50.000		Recovery =	73.76%		
Target Compounds						
21) Anthracene	14.938	178	1371795	4.69	ppm	99
36) 1,4-Dioxane	2.378	88	777146	24.12	ppm	85

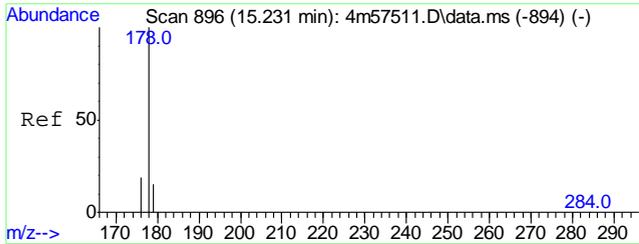
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
Data File : 4m64057.D
Acq On : 14 Mar 2016 5:34 pm
Operator : linseyk
Sample : jcl15796-2
Misc : op92023a,e4m2839,1000
ALS Vial : 18 Sample Multiplier: 1

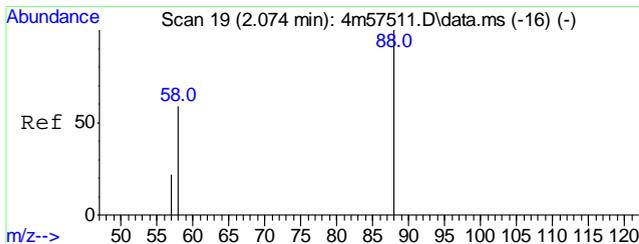
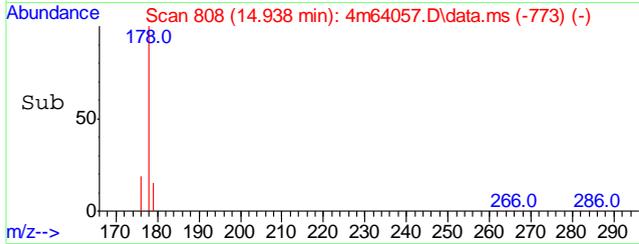
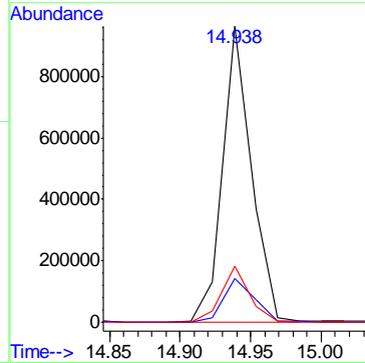
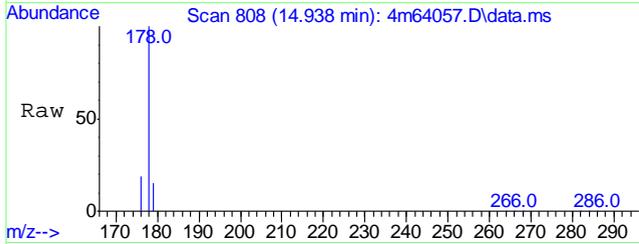
Quant Time: Mar 15 12:56:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration





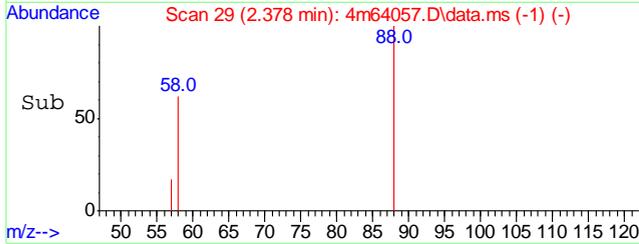
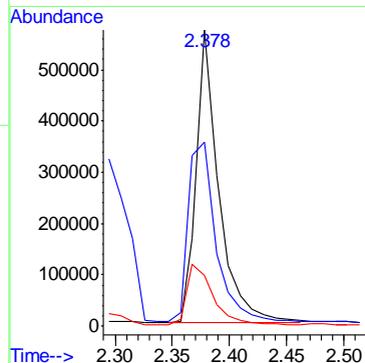
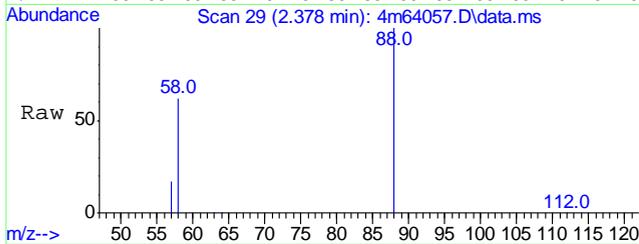
#21
 Anthracene
 Concen: 4.69 ppm
 RT: 14.938 min Scan# 808
 Delta R.T. 0.046 min
 Lab File: 4m64057.D
 Acq: 14 Mar 2016 5:34 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.8	0.0	44.8
176	18.7	0.0	47.7



#36
 1,4-Dioxane
 Concen: 24.12 ppm
 RT: 2.378 min Scan# 29
 Delta R.T. -0.031 min
 Lab File: 4m64057.D
 Acq: 14 Mar 2016 5:34 pm

Tgt Ion	Ratio	Lower	Upper
88	100		
58	61.4	56.2	96.2
57	16.8	0.0	35.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64058.D
 Acq On : 14 Mar 2016 6:04 pm
 Operator : linseyk
 Sample : jcl15796-3
 Misc : op92023a,e4m2839,1000
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 12:56:57 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Mar 14 13:08:05 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.923	152	318626	4.00	ppm	0.05
12) Fluorene-d10	12.894	176	595721	4.00	ppm	0.05
22) Fluoranthene-d10	17.053	212	955992	4.00	ppm	0.04
28) Benzo(a)pyrene-d12	21.642	264	708860	4.00	ppm	0.05
35) 1-Methylnaphthalene-d10a	9.923	152	318626	4.00	ppm	0.05
38) Fluorene-d10a	12.894	176	595721	4.00	ppm	0.05
System Monitoring Compounds						
2) 2-Fluorophenol	4.221	112	1472926	20.70	ppm	-0.02
Spiked Amount	50.000	Range 11 - 58	Recovery =	41.40%		
3) Phenol-d5	5.622	99	1609182	14.85	ppm	0.06
Spiked Amount	50.000		Recovery =	29.70%		
6) Nitrobenzene-d5	7.092	82	3103928	38.61	ppm	0.05
Spiked Amount	50.000		Recovery =	77.22%		
11) 2-Fluorobiphenyl	10.567	172	4072980	30.55	ppm	0.05
Spiked Amount	50.000		Recovery =	61.10%		
17) 2,4,6-Tribromophenol	13.443	330	1196276	45.24	ppm	0.05
Spiked Amount	50.000		Recovery =	90.48%		
25) Terphenyl-d14	17.844	244	6215757	40.36	ppm	0.04
Spiked Amount	50.000		Recovery =	80.72%		

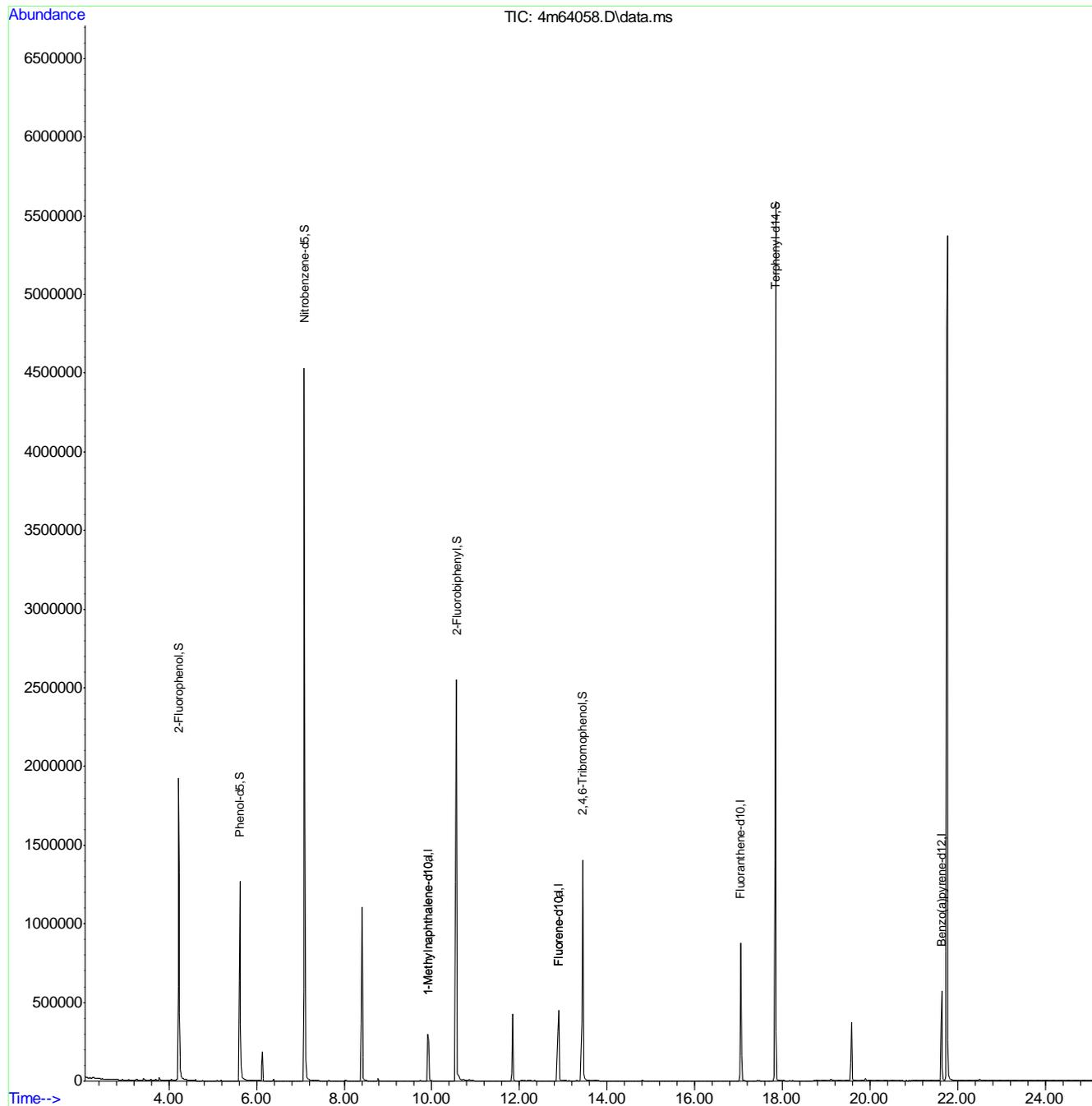
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
Data File : 4m64058.D
Acq On : 14 Mar 2016 6:04 pm
Operator : linseyk
Sample : jcl15796-3
Misc : op92023a,e4m2839,1000
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 15 12:56:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Mar 14 13:08:05 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103295.D Vial: 5
 Acq On : 14 Mar 2016 10:13 am Operator: linseyk
 Sample : op92023-mb1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:43:37 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	192602	40.00	ppm	-0.07
24) Naphthalene-d8	5.96	136	677103	40.00	ppm	-0.08
47) Acenaphthene-d10	8.67	164	402153	40.00	ppm	-0.09
69) Phenanthrene-d10	11.03	188	607805	40.00	ppm	-0.09
83) Chrysene-d12	15.72	240	561765	40.00	ppm	-0.11
92) Perylene-d12	18.27	264	419524	40.00	ppm	-0.12
102) 1,4-Dichlorobenzene-d4A	4.22	152	192602	40.00	ppm	-0.07
112) Naphthalene-d8A	5.96	136	677103	40.00	ppm	-0.08
121) Acenaphthene-d10A	8.67	164	402153	40.00	ppm	-0.09
132) Phenanthrene-d10A	11.03	188	607805	40.00	ppm	-0.09
147) Chrysene-d12A	15.72	240	561765	40.00	ppm	-0.11
155) Perylene-d12A	18.27	264	419524	40.00	ppm	-0.12
159) 1,4-Dichlorobenzene-d4b	4.22	152	192602	40.00	ppm	-0.07
161) Phenanthrene-d10b	11.03	188	607805	40.00	ppm	-0.09
163) Chrysene-d12b	15.72	240	561765	40.00	ppm	-0.11
165) Naphthalene-d8b	5.96	136	677103	40.00	ppm	-0.08
167) Acenaphthene-d10b	8.67	164	402153	40.00	ppm	-0.09
169) Naphthalene-d8c	5.96	136	677103	40.00	ppm	-0.08
174) 1,4-Dichlorobenzene-d4a	4.22	152	192602	40.00	ppm	-0.07
176) Chrysene-d12c	15.72	240	561765	40.00	ppm	-0.11
178) Chrysene-d12d	15.72	240	561765	40.00	ppm	-0.11
180) Naphthalene-d8a	5.96	136	677103	40.00	ppm	-0.08

System Monitoring Compounds						
5) 2-Fluorophenol	2.85	112	126290	18.84	ppm	0.00
Spiked Amount	50.000		Recovery	=	37.68%	
8) Phenol-d5	3.82	99	107186	13.10	ppm	-0.09
Spiked Amount	50.000		Recovery	=	26.20%	
25) Nitrobenzene-d5	4.94	82	224651	32.77	ppm	-0.08
Spiked Amount	50.000		Recovery	=	65.54%	
51) 2-Fluorobiphenyl	7.65	172	373058	30.58	ppm	-0.09
Spiked Amount	50.000		Recovery	=	61.16%	
73) 2,4,6-Tribromophenol	9.93	330	46961	33.05	ppm	-0.10
Spiked Amount	50.000		Recovery	=	66.10%	
85) Terphenyl-d14	13.83	244	389091	35.18	ppm	-0.11
Spiked Amount	50.000		Recovery	=	70.36%	

Target Compounds Qvalue

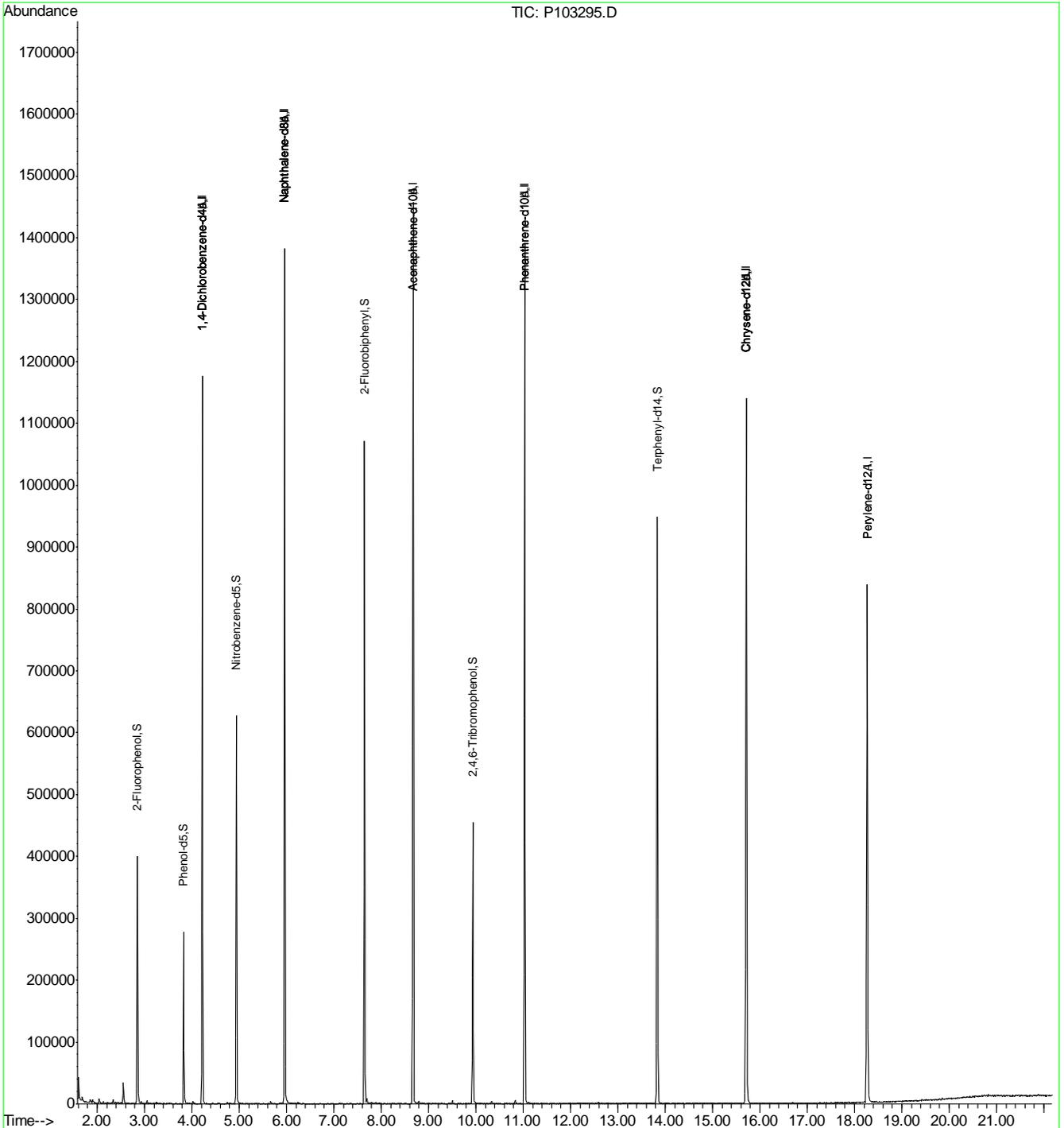
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103295.D MP4524AP9.M Tue Mar 15 12:44:53 2016

9.2.1
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103295.D Vial: 5
 Acq On : 14 Mar 2016 10:13 am Operator: linseyk
 Sample : op92023-mb1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:44 2016 Quant Results File: MP4524AP9.RES

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64044.D
 Acq On : 14 Mar 2016 11:06 am
 Operator : linseyk
 Sample : op92023a-mb1
 Misc : op92023a,e4m2839,1000
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 12:28:49 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Mar 14 11:09:12 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.899	152	387406	4.00	ppm	# 0.02
12) Fluorene-d10	12.870	176	755196	4.00	ppm	# 0.02
22) Fluoranthene-d10	17.053	212	1217823	4.00	ppm	0.04
28) Benzo(a)pyrene-d12	21.628	264	937864	4.00	ppm	0.04
35) 1-Methylnaphthalene-d10a	9.899	152	387406	4.00	ppm	# 0.02
38) Fluorene-d10a	12.870	176	755196	4.00	ppm	# 0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.221	112	1713418	19.80	ppm	-0.02
Spiked Amount	50.000	Range	11 - 58	Recovery	=	39.60%
3) Phenol-d5	5.608	99	1836085	13.94	ppm	0.04
Spiked Amount	50.000			Recovery	=	27.88%
6) Nitrobenzene-d5	7.092	82	3877116	39.67	ppm	0.05
Spiked Amount	50.000			Recovery	=	79.34%
11) 2-Fluorobiphenyl	10.567	172	4619013	28.50	ppm	0.05
Spiked Amount	50.000			Recovery	=	57.00%
17) 2,4,6-Tribromophenol	13.419	330	1262191	37.65	ppm	0.02
Spiked Amount	50.000			Recovery	=	75.30%
25) Terphenyl-d14	17.844	244	7814645	39.83	ppm	0.04
Spiked Amount	50.000			Recovery	=	79.66%

Target Compounds Qvalue

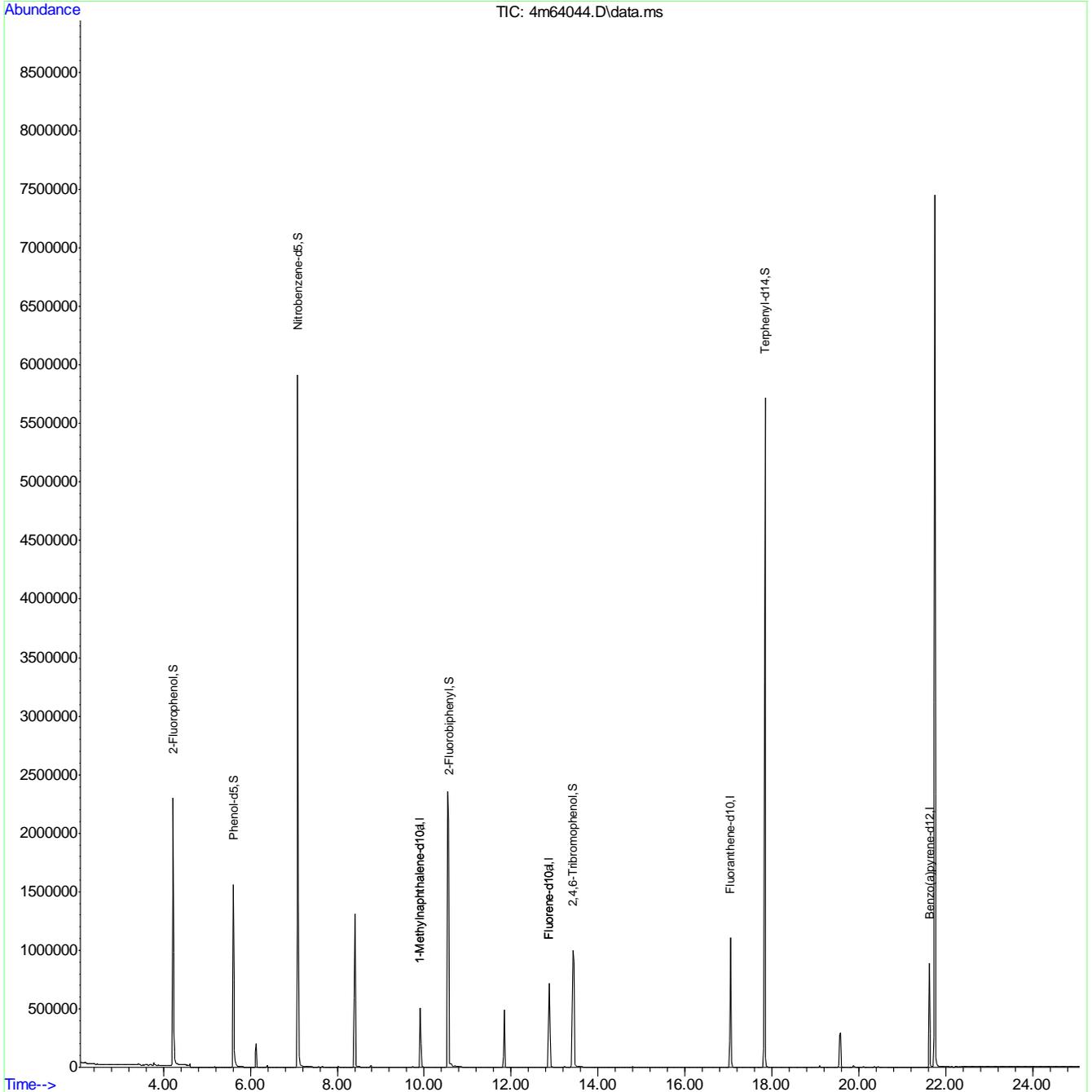
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.22
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64044.D
 Acq On : 14 Mar 2016 11:06 am
 Operator : linseyk
 Sample : op92023a-mb1
 Misc : op92023a,e4m2839,1000
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 12:28:49 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Mar 14 11:09:12 2016
 Response via : Initial Calibration



9.2.2
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103296.D Vial: 6
 Acq On : 14 Mar 2016 10:42 am Operator: linseyk
 Sample : op92023-bs1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:45:04 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	161308	40.00	ppm	-0.07
24) Naphthalene-d8	5.96	136	549593	40.00	ppm	-0.08
47) Acenaphthene-d10	8.67	164	327326	40.00	ppm	-0.09
69) Phenanthrene-d10	11.03	188	484172	40.00	ppm	-0.09
83) Chrysene-d12	15.72	240	443040	40.00	ppm	-0.11
92) Perylene-d12	18.27	264	350242	40.00	ppm	-0.12
102) 1,4-Dichlorobenzene-d4A	4.22	152	161308	40.00	ppm	-0.07
112) Naphthalene-d8A	5.96	136	549593	40.00	ppm	-0.08
121) Acenaphthene-d10A	8.67	164	327326	40.00	ppm	-0.09
132) Phenanthrene-d10A	11.03	188	484172	40.00	ppm	-0.09
147) Chrysene-d12A	15.72	240	443040	40.00	ppm	-0.11
155) Perylene-d12A	18.27	264	350242	40.00	ppm	-0.12
159) 1,4-Dichlorobenzene-d4b	4.22	152	161308	40.00	ppm	-0.07
161) Phenanthrene-d10b	11.03	188	484172	40.00	ppm	-0.09
163) Chrysene-d12b	15.72	240	443040	40.00	ppm	-0.11
165) Naphthalene-d8b	5.96	136	549593	40.00	ppm	-0.08
167) Acenaphthene-d10b	8.67	164	327326	40.00	ppm	-0.09
169) Naphthalene-d8c	5.96	136	549593	40.00	ppm	-0.08
174) 1,4-Dichlorobenzene-d4a	4.22	152	161308	40.00	ppm	-0.07
176) Chrysene-d12c	15.72	240	443040	40.00	ppm	-0.11
178) Chrysene-d12d	15.72	240	443040	40.00	ppm	-0.11
180) Naphthalene-d8a	5.96	136	549593	40.00	ppm	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol	2.85	112	121134	21.58	ppm	0.00
Spiked Amount	50.000		Recovery	=	43.16%	
8) Phenol-d5	3.82	99	105335	15.38	ppm	-0.09
Spiked Amount	50.000		Recovery	=	30.76%	
25) Nitrobenzene-d5	4.94	82	194752	35.00	ppm	-0.08
Spiked Amount	50.000		Recovery	=	70.00%	
51) 2-Fluorobiphenyl	7.65	172	344107	34.65	ppm	-0.09
Spiked Amount	50.000		Recovery	=	69.30%	
73) 2,4,6-Tribromophenol	9.94	330	43072	38.05	ppm	-0.10
Spiked Amount	50.000		Recovery	=	76.10%	
85) Terphenyl-d14	13.83	244	347586	39.84	ppm	-0.11
Spiked Amount	50.000		Recovery	=	79.68%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.70	88	44745	15.61	ppm	96
3) Pyridine	1.89	79	125118	19.34	ppm	98
4) N-Nitrosodimethylamine	1.86	42	53436	22.09	ppm	91
6) Indene	4.54	116	285327	31.10	ppm	98
7) Cumene	3.32	105	353571	26.68	ppm	100
9) Phenol	3.84	94	120700	17.07	ppm	80
10) Aniline	3.82	93	211197	27.42	ppm	77
11) bis(2-Chloroethyl)ether	3.90	93	173616	33.38	ppm	95
12) 2-Chlorophenol	3.98	128	168853	31.52	ppm	96
13) Decane	4.04	43	107923	25.32	ppm	95
14) 1,3-Dichlorobenzene	4.15	146	146049	24.34	ppm	99
15) 1,4-Dichlorobenzene	4.24	146	146396	25.40	ppm	98

(#) = qualifier out of range (m) = manual integration
 P103296.D MP4524AP9.M Tue Mar 15 13:00:15 2016

9.3.1
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103296.D Vial: 6
 Acq On : 14 Mar 2016 10:42 am Operator: linseyk
 Sample : op92023-bs1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:45:04 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.41	108	104084	32.68	ppm	95
17) 1,2-Dichlorobenzene	4.43	146	143675	26.28	ppm	98
18) Acetophenone	4.74	105	243716	33.60	ppm	98
19) 2-Methylphenol	4.59	108	136192	29.89	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.58	121	46568m	27.23	ppm	
21) 3&4-Methylphenol	4.80	108	140963	28.36	ppm	100
22) n-Nitroso-di-n-propylamine	4.76	70	123783	34.00	ppm	97
23) Hexachloroethane	4.88	201	43470	23.14	ppm	97
26) Nitrobenzene	4.97	77	185302	34.71	ppm	98
27) Quinoline	6.49	129	359572	36.31	ppm	99
28) Isophorone	5.31	82	362253	40.02	ppm	98
29) 2-Nitrophenol	5.42	139	95489	36.47	ppm	96
30) 2,4-Dimethylphenol	5.53	107	167963	37.77	ppm	95
31) Benzoic acid	5.70	105	49502	14.33	ppm	97
32) bis(2-Chloroethoxy)methane	5.65	93	206439	36.11	ppm	98
33) 2,4-Dichlorophenol	5.79	162	144205	37.11	ppm	95
34) 2,6-Dichlorophenol	6.11	162	131069	35.14	ppm	98
36) 1,2,4-Trichlorobenzene	5.89	180	119646	27.79	ppm	95
38) Naphthalene	5.99	128	441087	32.36	ppm	99
39) 4-Chloroaniline	6.10	127	175409	30.27	ppm	99
40) 2,3-Dichloroaniline	7.50	161	175138	35.47	ppm	99
41) Caprolactam	6.59	55	22522	12.33	ppm	86
42) Hexachlorobutadiene	6.21	225	56038	26.19	ppm	99
43) 4-Chloro-3-methylphenol	6.92	107	170410	41.05	ppm	100
44) 2-Methylnaphthalene	7.05	141	260866	34.55	ppm	98
45) 1-Methylnaphthalene	7.20	142	310205	33.68	ppm	99
46) Dimethylnaphthalene	8.03	156	284902	35.36	ppm	99
48) Hexachlorocyclopentadiene	7.32	237	107477	50.40	ppm	99
49) 2,4,6-Trichlorophenol	7.53	196	97107	37.87	ppm	99
50) 2,4,5-Trichlorophenol	7.60	196	102232	38.31	ppm	98
52) 2-Chloronaphthalene	7.80	162	277752	32.30	ppm	99
53) Biphenyl	7.79	154	367274	33.22	ppm	98
54) 2-Nitroaniline	8.00	65	110476	44.43	ppm	96
55) Dimethylphthalate	8.33	163	383322	38.57	ppm	99
56) Acenaphthylene	8.44	152	476958	34.73	ppm	99
57) 2,6-Dinitrotoluene	8.40	165	89476	42.21	ppm	94
58) 3-Nitroaniline	8.65	138	91146	36.53	ppm	97
59) Acenaphthene	8.73	153	307798	36.06	ppm	97
60) 2,4-Dinitrophenol	8.82	184	89300	72.69	ppm	93
61) 4-Nitrophenol	9.06	109	31452	23.16	ppm	96
62) Dibenzofuran	9.01	168	455104	37.83	ppm	98
63) 2,4-Dinitrotoluene	9.03	165	116857	35.39	ppm	96
64) 2,3,4,6-Tetrachlorophenol	9.23	232	79947	38.99	ppm	98
65) Diethylphthalate	9.46	149	392667	39.75	ppm	99
66) Fluorene	9.55	166	372733	37.95	ppm	99
67) 4-Chlorophenyl-phenylether	9.59	204	160811	36.49	ppm	98
68) 4-Nitroaniline	9.63	138	107249	42.78	ppm	93
70) 4,6-Dinitro-2-methylphenol	9.67	198	66113	37.66	ppm	94
71) n-Nitrosodiphenylamine	9.79	169	276669	39.68	ppm	99

(#) = qualifier out of range (m) = manual integration
 P103296.D MP4524AP9.M Tue Mar 15 13:00:15 2016

9.3.1
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103296.D Vial: 6
 Acq On : 14 Mar 2016 10:42 am Operator: linseyk
 Sample : op92023-bs1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:45:04 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72) 1,2-Diphenylhydrazine	9.84	77	397559	41.61	ppm	99
74) 4-Bromophenyl-phenylether	10.36	248	94431	39.86	ppm	96
75) Hexachlorobenzene	10.43	284	97775	38.02	ppm	99
76) Pentachlorophenol	10.77	266	54673	36.85	ppm	96
77) Phenanthrene	11.07	178	497046	40.02	ppm	99
78) Anthracene	11.15	178	500464	40.20	ppm	99
79) Carbazole	11.45	167	545222	42.75	ppm	99
80) Di-n-butylphthalate	12.14	149	661313	44.48	ppm	100
81) Fluoranthene	13.07	202	567170	42.44	ppm	98
82) Octadecane	11.03	57	197468	40.50	ppm	98
84) Pyrene	13.46	202	588222	41.72	ppm	98
86) Butylbenzylphthalate	14.82	149	303297	44.24	ppm	97
88) Benzo[a]anthracene	15.70	228	484641	41.92	ppm	99
89) 3,3'-Dichlorobenzidine	15.73	252	252965	52.72	ppm	98
90) Chrysene	15.76	228	456436	39.89	ppm	99
91) bis(2-Ethylhexyl)phthalate	15.99	149	393176	36.23	ppm	100
93) Di-n-octylphthalate	17.19	149	676943	44.64	ppm	99
94) Benzo[b]fluoranthene	17.64	252	495090	49.70	ppm	98
95) Benzo[k]fluoranthene	17.69	252	464165	48.37	ppm	98
96) Benzo[a]pyrene	18.17	252	443020	50.42	ppm	99
97) Indeno[1,2,3-cd]pyrene	19.89	276	395393	50.97	ppm	98
99) Dibenz[a,h]anthracene	19.94	278	421940	50.48	ppm	100
100) 7,12-Dimethylbenz(a)anthra	17.65	256	205159	48.64	ppm	98
101) Benzo[g,h,i]perylene	20.25	276	420146	47.29	ppm	98
160) Benzaldehyde	3.70	105	146501	30.21	ppm	98
162) Atrazine	10.70	200	97571	39.49	ppm	97
164) Benzidine	13.38	184	157423	20.19	ppm	98
168) 1,2,4,5-Tetrachlorobenzene	7.32	216	128501	28.60	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103296.D MP4524AP9.M Tue Mar 15 13:00:15 2016

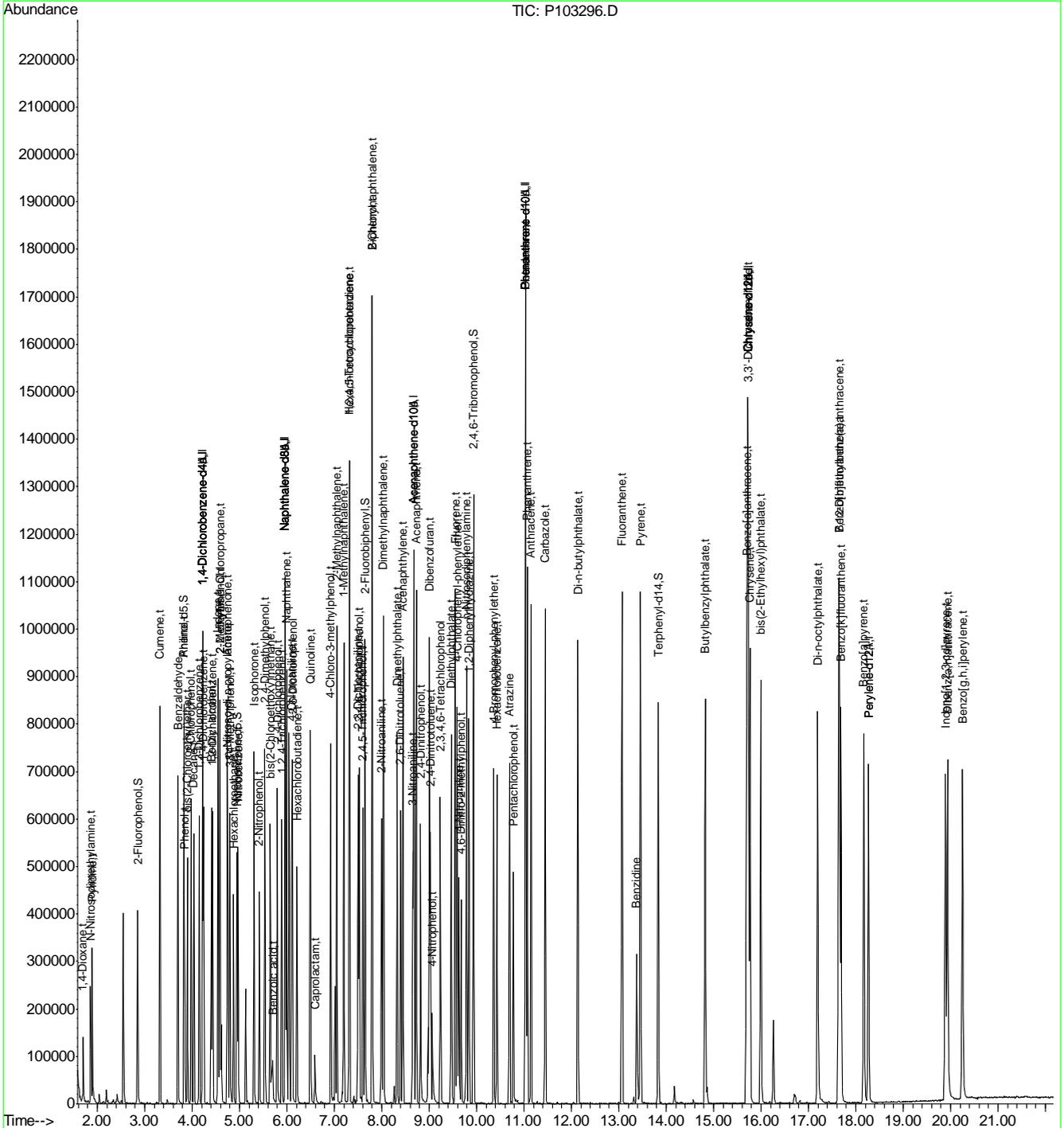
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103296.D
Acq On : 14 Mar 2016 10:42 am
Sample : op92023-bs1
Misc : op92023,ep4538,1000
MS Integration Params: rteint.p
Quant Time: Mar 15 13:00 2016

Vial: 6
Operator: linseyk
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4524AP9.RES

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 12:43:35 2016
Response via : Initial Calibration



Manual Integration Approval Summary

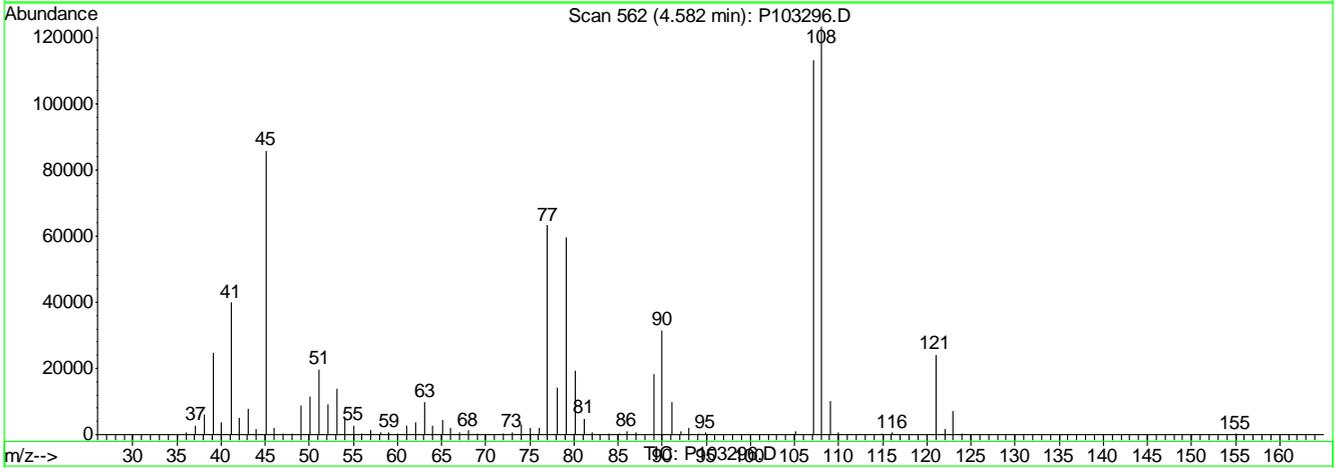
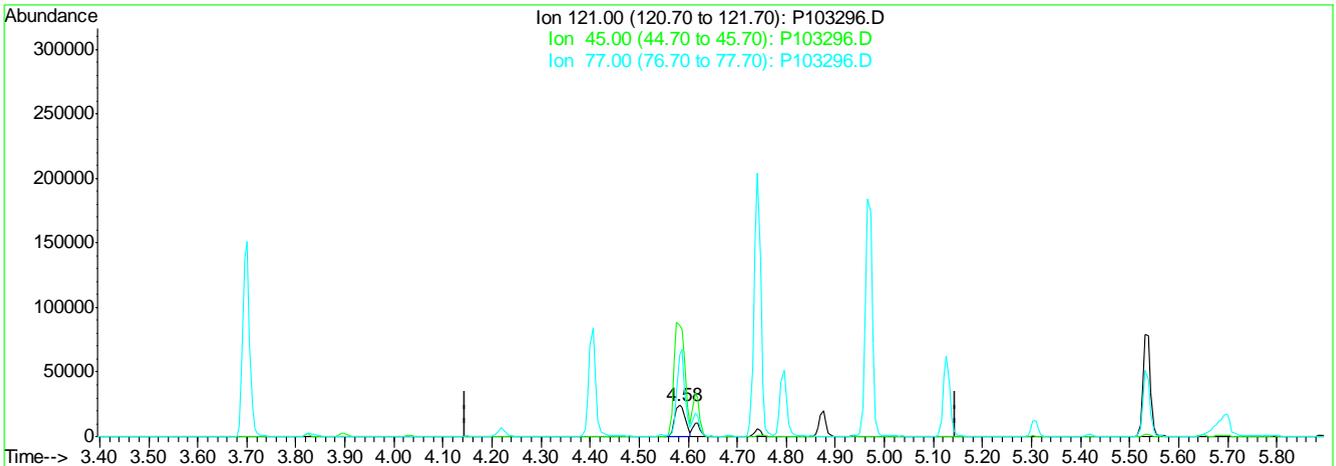
Sample Number: OP92023-BS1 Method: SW846 8270D
Lab FileID: P103296.D Analyst approved: 03/15/16 13:01 Linsey Kirschmann
Injection Time: 03/14/16 10:42 Supervisor approved: 03/15/16 15:59 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
bis(2-Chloroisopropyl)ether	108-60-1		4.58	Poor instrument integration

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103296.D Vial: 6
 Acq On : 14 Mar 2016 10:42 am Operator: linseyk
 Sample : op92023-bs1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:46 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Multiple Level Calibration



(20) 2,2'-oxybis(1-Chloropropane (t)

4.58min 21.00ppm

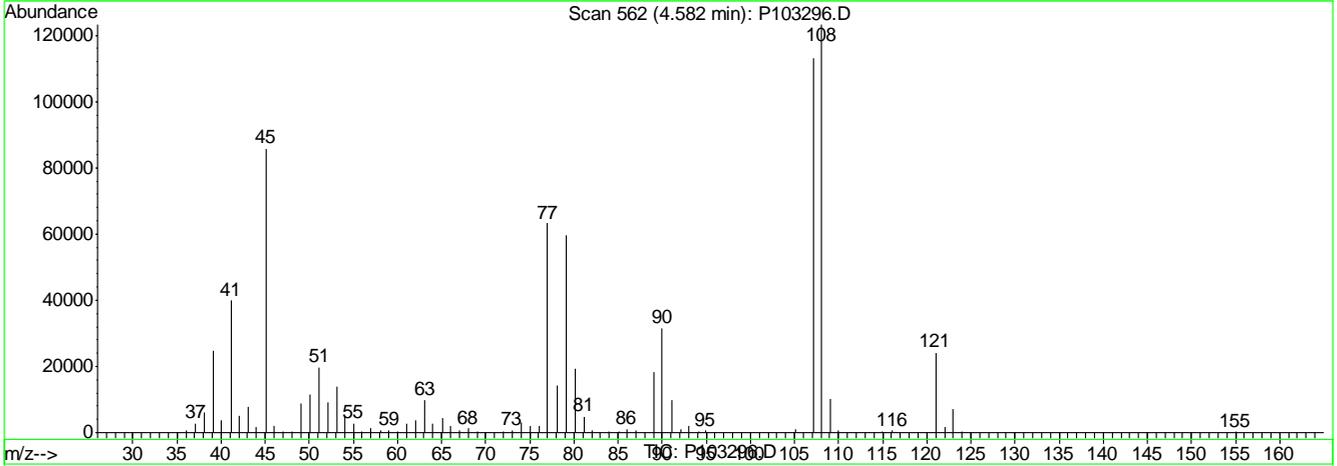
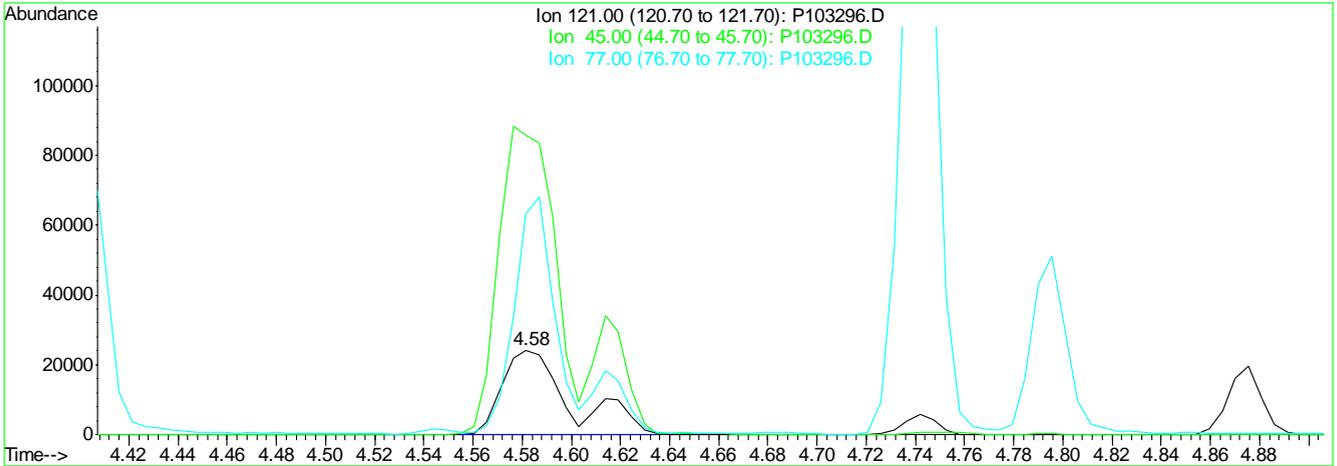
response 35917

Ion	Exp%	Act%
121.00	100	100
45.00	344.10	352.78
77.00	51.90	257.18#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103296.D Vial: 6
 Acq On : 14 Mar 2016 10:42 am Operator: linseyk
 Sample : op92023-bs1 Inst : MSP
 Misc : op92023,ep4538,1000 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 13:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Multiple Level Calibration



(20) 2,2'-oxybis(1-Chloropropane (t)

4.58min 27.23ppm m

response 46568

Ion	Exp%	Act%
121.00	100	100
45.00	344.10	354.73
77.00	51.90	261.71#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64045.D
 Acq On : 14 Mar 2016 11:36 am
 Operator : linseyk
 Sample : op92023a-bs12
 Misc : op92023a,e4m2839,1000
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 12:33:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 15 12:32:57 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.899	152	322837	4.00	ppm	# 0.02
12) Fluorene-d10	12.870	176	600206	4.00	ppm	0.02
22) Fluoranthene-d10	17.053	212	970599	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.628	264	759823	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.899	152	322837	4.00	ppm	# 0.02
38) Fluorene-d10a	12.870	176	600206	4.00	ppm	# 0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.221	112	1402162	19.45	ppm	-0.02
Spiked Amount	50.000	Range	11 - 58	Recovery	=	38.90%
3) Phenol-d5	5.608	99	1578539	14.38	ppm	0.04
Spiked Amount	50.000			Recovery	=	28.76%
6) Nitrobenzene-d5	7.092	82	2874240	35.29	ppm	0.05
Spiked Amount	50.000			Recovery	=	70.58%
11) 2-Fluorobiphenyl	10.543	172	3431961	25.41	ppm	0.02
Spiked Amount	50.000			Recovery	=	50.82%
17) 2,4,6-Tribromophenol	13.419	330	1077554	40.45	ppm	0.02
Spiked Amount	50.000			Recovery	=	80.90%
25) Terphenyl-d14	17.844	244	6812488	43.57	ppm	0.00
Spiked Amount	50.000			Recovery	=	87.14%
Target Compounds						
4) Phenol	5.622	94	213230	1.86	ppm	Qvalue 66
5) bis(2-Chloroethyl)ether	5.718	93	58279	0.68	ppm	# 39
7) Naphthalene	8.438	128	187418	0.67	ppm	95
8) Hexachlorobutadiene	8.732	225	24788	0.58	ppm	88
9) 2-Methylnaphthalene	9.779	142	81691	0.79	ppm	# 55
10) Hexachlorocyclopentadiene	10.137	237	9511	0.58	ppm	76
13) Acenaphthylene	11.545	152	143787	0.74	ppm	94
14) Acenaphthene	11.890	153	83257	0.76	ppm	81
15) Dibenzofuran	12.263	168	134710	0.46	ppm	# 13
16) Fluorene	12.918	166	122688	0.67	ppm	100
18) Hexachlorobenzene	14.042	284	48190	0.70	ppm	92
19) Pentachlorophenol	14.475	266	135329	4.44	ppm	95
20) Phenanthrene	14.830	178	239122	0.81	ppm	92
21) Anthracene	14.938	178	221960	0.83	ppm	96
23) Fluoranthene	17.072	202	271896	0.81	ppm	97
24) Pyrene	17.467	202	288192	0.91	ppm	96
26) Benzo[a]anthracene	19.538	228	212454	0.82	ppm	100
27) Chrysene	19.595	228	215574	0.76	ppm	100
29) Benzo[b]fluoranthene	21.201	252	220626	0.75	ppm	99
30) Benzo[k]fluoranthene	21.242	252	166918	0.67	ppm	98
31) Benzo[a]pyrene	21.655	252	181961	0.71	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.211	276	172179	0.62	ppm	95
33) Dibenz[a,h]anthracene	23.253	278	144950	0.63	ppm	96
34) Benzo[g,h,i]perylene	23.624	276	146031	0.59	ppm	100
36) 1,4-Dioxane	2.378	88	12051	0.41	ppm	80
39) 4,6-dinitro-2-methylph...	13.109	198	85242	4.14	ppm	# 58
40) 1,2-Diphenylhydrazine	13.276	77	119678	0.73	ppm	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64045.D
 Acq On : 14 Mar 2016 11:36 am
 Operator : linseyk
 Sample : op92023a-bs12
 Misc : op92023a,e4m2839,1000
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 12:33:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 15 12:32:57 2016
 Response via : Initial Calibration

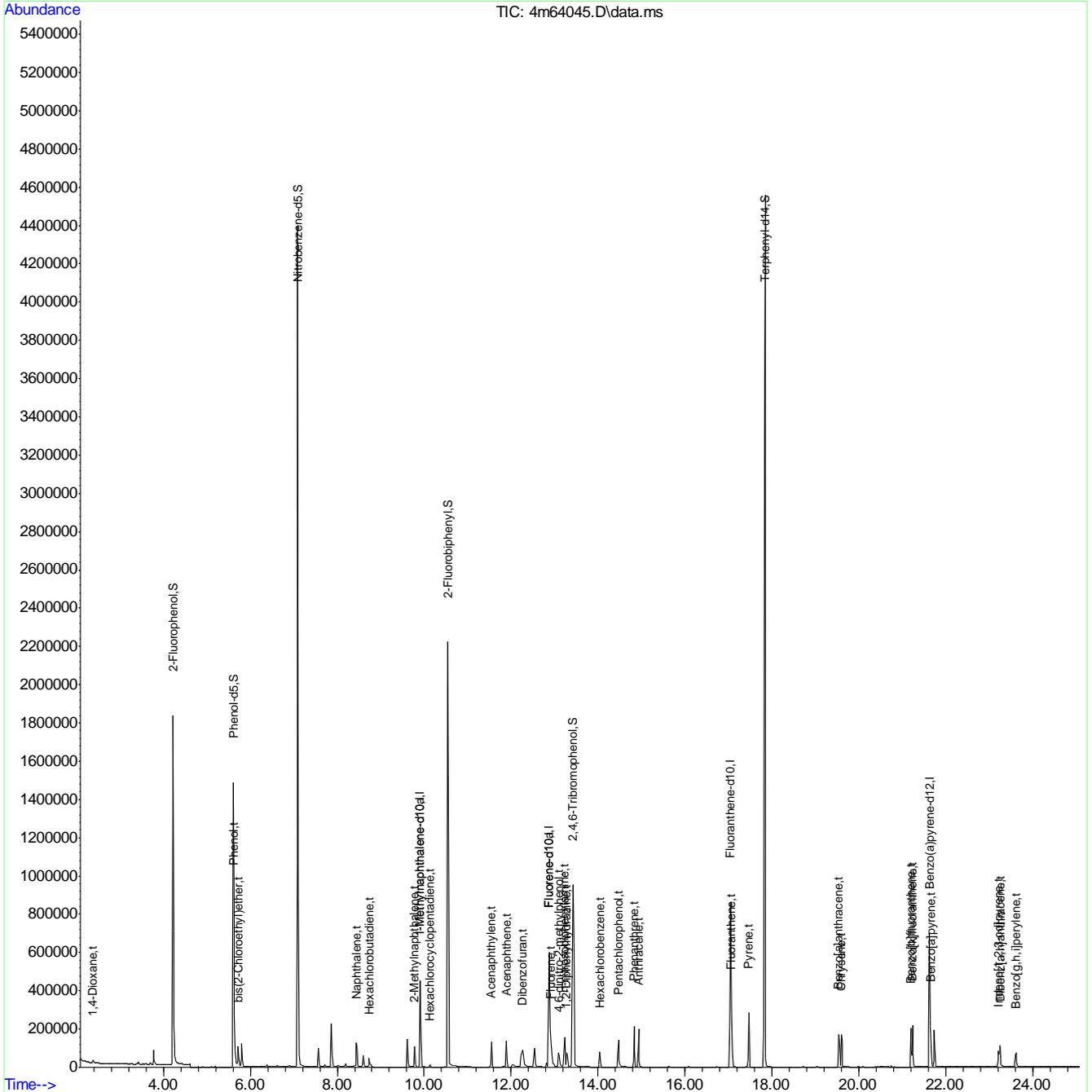
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.228	169	113297	1.13	ppm #	68

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64045.D
 Acq On : 14 Mar 2016 11:36 am
 Operator : linseyk
 Sample : op92023a-bs12
 Misc : op92023a,e4m2839,1000
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 12:33:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 15 12:32:57 2016
 Response via : Initial Calibration



9.3.2
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103315.D Vial: 25
 Acq On : 14 Mar 2016 7:43 pm Operator: linseyk
 Sample : op92023-ms Inst : MSP
 Misc : op92023,ep4538,500 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:52:35 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	173099	40.00	ppm	-0.07
24) Naphthalene-d8	5.96	136	605621	40.00	ppm	-0.08
47) Acenaphthene-d10	8.67	164	355829	40.00	ppm	-0.09
69) Phenanthrene-d10	11.03	188	538247	40.00	ppm	-0.09
83) Chrysene-d12	15.72	240	495500	40.00	ppm	-0.11
92) Perylene-d12	18.27	264	432420	40.00	ppm	-0.12
102) 1,4-Dichlorobenzene-d4A	4.22	152	173099	40.00	ppm	-0.07
112) Naphthalene-d8A	5.96	136	605621	40.00	ppm	-0.08
121) Acenaphthene-d10A	8.67	164	355829	40.00	ppm	-0.09
132) Phenanthrene-d10A	11.03	188	538247	40.00	ppm	-0.09
147) Chrysene-d12A	15.72	240	495500	40.00	ppm	-0.11
155) Perylene-d12A	18.27	264	432420	40.00	ppm	-0.12
159) 1,4-Dichlorobenzene-d4b	4.22	152	173099	40.00	ppm	-0.07
161) Phenanthrene-d10b	11.03	188	538247	40.00	ppm	-0.09
163) Chrysene-d12b	15.72	240	495500	40.00	ppm	-0.11
165) Naphthalene-d8b	5.96	136	605621	40.00	ppm	-0.08
167) Acenaphthene-d10b	8.67	164	355829	40.00	ppm	-0.09
169) Naphthalene-d8c	5.96	136	605621	40.00	ppm	-0.08
174) 1,4-Dichlorobenzene-d4a	4.22	152	173099	40.00	ppm	-0.07
176) Chrysene-d12c	15.72	240	495500	40.00	ppm	-0.11
178) Chrysene-d12d	15.72	240	495500	40.00	ppm	-0.11
180) Naphthalene-d8a	5.96	136	605621	40.00	ppm	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol	2.85	112	179252	29.75	ppm	0.00
Spiked Amount	50.000		Recovery	=	59.50%	
8) Phenol-d5	3.82	99	197670	26.89	ppm	-0.09
Spiked Amount	50.000		Recovery	=	53.78%	
25) Nitrobenzene-d5	4.94	82	213019	34.74	ppm	-0.08
Spiked Amount	50.000		Recovery	=	69.48%	
51) 2-Fluorobiphenyl	7.65	172	381284	35.32	ppm	-0.09
Spiked Amount	50.000		Recovery	=	70.64%	
73) 2,4,6-Tribromophenol	9.94	330	55546	44.14	ppm	-0.10
Spiked Amount	50.000		Recovery	=	88.28%	
85) Terphenyl-d14	13.83	244	392497	40.23	ppm	-0.11
Spiked Amount	50.000		Recovery	=	80.46%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.70	88	77680	25.26	ppm	95
3) Pyridine	1.89	79	159830	23.02	ppm	99
4) N-Nitrosodimethylamine	1.86	42	69126	26.63	ppm	93
6) Indene	4.54	116	322534	32.76	ppm	99
7) Cumene	3.32	105	454748	31.97	ppm	99
9) Phenol	3.84	94	214978	28.34	ppm	81
10) Aniline	3.82	93	265638	32.14	ppm	75
11) bis(2-Chloroethyl)ether	3.90	93	188755	33.82	ppm	96
12) 2-Chlorophenol	3.98	128	206086	35.85	ppm	97
13) Decane	4.04	43	126661	27.69	ppm	94
14) 1,3-Dichlorobenzene	4.15	146	172932	26.85	ppm	100
15) 1,4-Dichlorobenzene	4.24	146	173996	28.13	ppm	98

(#) = qualifier out of range (m) = manual integration
 P103315.D MP4524AP9.M Tue Mar 15 14:58:38 2016

9.4.1
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103315.D Vial: 25
 Acq On : 14 Mar 2016 7:43 pm Operator: linseyk
 Sample : op92023-ms Inst : MSP
 Misc : op92023,ep4538,500 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:52:35 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.41	108	136895	40.06	ppm	96
17) 1,2-Dichlorobenzene	4.43	146	169887	28.95	ppm	99
18) Acetophenone	4.74	105	268551	34.50	ppm	98
19) 2-Methylphenol	4.59	108	187013	38.25	ppm	98
20) 2,2'-oxybis(1-Chloropropan	4.58	121	38958	21.22	ppm #	77
21) 3&4-Methylphenol	4.80	108	204950	38.42	ppm	100
22) n-Nitroso-di-n-propylamine	4.76	70	133819	34.26	ppm	97
23) Hexachloroethane	4.88	201	53651	26.62	ppm	95
26) Nitrobenzene	4.97	77	199272	33.88	ppm	99
27) Quinoline	6.49	129	390632	35.80	ppm	99
28) Isophorone	5.31	82	391194	39.22	ppm	98
29) 2-Nitrophenol	5.42	139	108246	37.51	ppm	94
30) 2,4-Dimethylphenol	5.54	107	227121	46.35	ppm	99
31) Benzoic acid	5.74	105	136053	35.74	ppm	96
32) bis(2-Chloroethoxy)methane	5.65	93	226539	35.96	ppm	97
33) 2,4-Dichlorophenol	5.80	162	181560	42.40	ppm	97
34) 2,6-Dichlorophenol	6.12	162	163412	39.76	ppm	96
36) 1,2,4-Trichlorobenzene	5.89	180	140111	29.53	ppm	96
38) Naphthalene	5.99	128	490889	32.68	ppm	99
39) 4-Chloroaniline	6.10	127	220170	34.48	ppm	98
40) 2,3-Dichloroaniline	7.50	161	215467	39.60	ppm	99
41) Caprolactam	6.61	55	51242	25.45	ppm	98
42) Hexachlorobutadiene	6.21	225	65905	27.95	ppm	98
43) 4-Chloro-3-methylphenol	6.92	107	208820	45.65	ppm	97
44) 2-Methylnaphthalene	7.05	141	294132	35.35	ppm	98
45) 1-Methylnaphthalene	7.20	142	353476	34.82	ppm	99
46) Dimethylnaphthalene	8.03	156	324742	36.58	ppm	100
48) Hexachlorocyclopentadiene	7.32	237	108850	46.96	ppm	99
49) 2,4,6-Trichlorophenol	7.53	196	121288	43.51	ppm	97
50) 2,4,5-Trichlorophenol	7.61	196	124138	42.80	ppm	99
52) 2-Chloronaphthalene	7.80	162	313316	33.52	ppm	97
53) Biphenyl	7.79	154	419759	34.93	ppm	100
54) 2-Nitroaniline	8.00	65	128040	47.37	ppm	99
55) Dimethylphthalate	8.33	163	433091	40.09	ppm	98
56) Acenaphthylene	8.44	152	543069	36.37	ppm	99
57) 2,6-Dinitrotoluene	8.40	165	102767	44.60	ppm	95
58) 3-Nitroaniline	8.65	138	104753	38.62	ppm	96
59) Acenaphthene	8.73	153	348113	37.51	ppm	99
60) 2,4-Dinitrophenol	8.82	184	120687	88.54	ppm	98
61) 4-Nitrophenol	9.07	109	56861	38.51	ppm	93
62) Dibenzofuran	9.01	168	513574	39.27	ppm	98
63) 2,4-Dinitrotoluene	9.03	165	136681	38.26	ppm	79
64) 2,3,4,6-Tetrachlorophenol	9.24	232	98220	44.07	ppm	94
65) Diethylphthalate	9.46	149	437101	40.70	ppm	98
66) Fluorene	9.55	166	427289	40.02	ppm	100
67) 4-Chlorophenyl-phenylether	9.59	204	181921	37.97	ppm	99
68) 4-Nitroaniline	9.63	138	119487	43.85	ppm	97
70) 4,6-Dinitro-2-methylphenol	9.67	198	79793	40.62	ppm	97
71) n-Nitrosodiphenylamine	9.79	169	322854	41.65	ppm	99

(#) = qualifier out of range (m) = manual integration
 P103315.D MP4524AP9.M Tue Mar 15 14:58:38 2016

9.4.1
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103315.D Vial: 25
 Acq On : 14 Mar 2016 7:43 pm Operator: linseyk
 Sample : op92023-ms Inst : MSP
 Misc : op92023,ep4538,500 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:52:35 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72) 1,2-Diphenylhydrazine	9.84	77	446499	42.04	ppm	98
74) 4-Bromophenyl-phenylether	10.36	248	108211	41.09	ppm	99
75) Hexachlorobenzene	10.43	284	112658	39.40	ppm	96
76) Pentachlorophenol	10.77	266	73855	43.81	ppm	99
77) Phenanthrene	11.07	178	562359	40.73	ppm	99
78) Anthracene	11.15	178	675597	48.81	ppm	98
79) Carbazole	11.45	167	621767	43.85	ppm	99
80) Di-n-butylphthalate	12.14	149	758168	45.88	ppm	100
81) Fluoranthene	13.07	202	647289	43.57	ppm	97
82) Octadecane	11.03	57	205960	38.00	ppm	99
84) Pyrene	13.46	202	669116	42.43	ppm	96
86) Butylbenzylphthalate	14.82	149	353176	46.06	ppm	98
88) Benzo[a]anthracene	15.70	228	557495	43.12	ppm	99
89) 3,3'-Dichlorobenzidine	15.73	252	345195	65.43	ppm	98
90) Chrysene	15.77	228	527934	41.25	ppm	98
91) bis(2-Ethylhexyl)phthalate	15.99	149	461762	38.12	ppm	99
93) Di-n-octylphthalate	17.19	149	791345	41.93	ppm	99
94) Benzo[b]fluoranthene	17.64	252	565093	45.95	ppm	98
95) Benzo[k]fluoranthene	17.69	252	544773	45.98	ppm	98
96) Benzo[a]pyrene	18.17	252	516883	47.64	ppm	100
97) Indeno[1,2,3-cd]pyrene	19.89	276	449170	46.90	ppm	97
99) Dibenz[a,h]anthracene	19.94	278	480835	46.60	ppm	98
100) 7,12-Dimethylbenz(a)anthra	17.65	256	248181	47.66	ppm	99
101) Benzo[g,h,i]perylene	20.26	276	478587	43.63	ppm	99
160) Benzaldehyde	3.70	105	163698	31.46	ppm	97
162) Atrazine	10.70	200	111705	40.67	ppm	91
164) Benzidine	13.38	184	342980	39.32	ppm	99
168) 1,2,4,5-Tetrachlorobenzene	7.32	216	145777	29.85	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103315.D MP4524AP9.M Tue Mar 15 14:58:38 2016

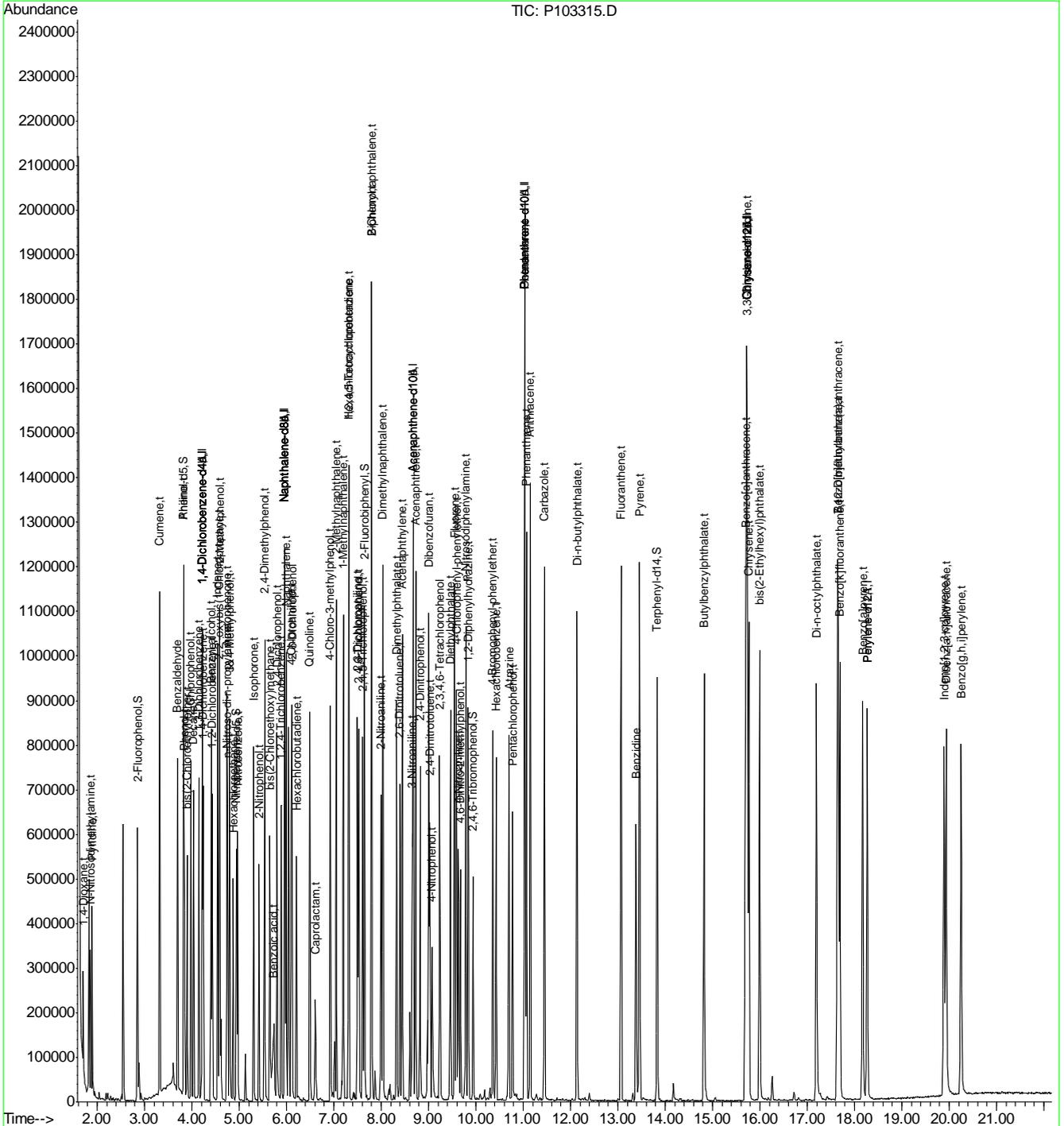
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103315.D
Acq On : 14 Mar 2016 7:43 pm
Sample : op92023-ms
Misc : op92023,ep4538,500
MS Integration Params: rteint.p
Quant Time: Mar 15 14:58 2016

Vial: 25
Operator: linseyk
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4524AP9.RES

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 12:43:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103316.D Vial: 26
 Acq On : 14 Mar 2016 8:12 pm Operator: linseyk
 Sample : op92023-msd Inst : MSP
 Misc : op92023,ep4538,500 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:58:48 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	189866	40.00	ppm	-0.07
24) Naphthalene-d8	5.96	136	657489	40.00	ppm	-0.08
47) Acenaphthene-d10	8.67	164	382282	40.00	ppm	-0.09
69) Phenanthrene-d10	11.03	188	569767	40.00	ppm	-0.09
83) Chrysene-d12	15.72	240	512693	40.00	ppm	-0.11
92) Perylene-d12	18.27	264	442937	40.00	ppm	-0.12
102) 1,4-Dichlorobenzene-d4A	4.22	152	189866	40.00	ppm	-0.07
112) Naphthalene-d8A	5.96	136	657489	40.00	ppm	-0.08
121) Acenaphthene-d10A	8.67	164	382282	40.00	ppm	-0.09
132) Phenanthrene-d10A	11.03	188	569767	40.00	ppm	-0.09
147) Chrysene-d12A	15.72	240	512693	40.00	ppm	-0.11
155) Perylene-d12A	18.27	264	442937	40.00	ppm	-0.12
159) 1,4-Dichlorobenzene-d4b	4.22	152	189866	40.00	ppm	-0.07
161) Phenanthrene-d10b	11.03	188	569767	40.00	ppm	-0.09
163) Chrysene-d12b	15.72	240	512693	40.00	ppm	-0.11
165) Naphthalene-d8b	5.96	136	657489	40.00	ppm	-0.08
167) Acenaphthene-d10b	8.67	164	382282	40.00	ppm	-0.09
169) Naphthalene-d8c	5.96	136	657489	40.00	ppm	-0.08
174) 1,4-Dichlorobenzene-d4a	4.22	152	189866	40.00	ppm	-0.07
176) Chrysene-d12c	15.72	240	512693	40.00	ppm	-0.11
178) Chrysene-d12d	15.72	240	512693	40.00	ppm	-0.11
180) Naphthalene-d8a	5.96	136	657489	40.00	ppm	-0.08

System Monitoring Compounds

5) 2-Fluorophenol	2.85	112	182098	27.56	ppm	0.00
Spiked Amount	50.000		Recovery	=	55.12%	
8) Phenol-d5	3.82	99	202228	25.08	ppm	-0.09
Spiked Amount	50.000		Recovery	=	50.16%	
25) Nitrobenzene-d5	4.95	82	212418	31.91	ppm	-0.08
Spiked Amount	50.000		Recovery	=	63.82%	
51) 2-Fluorobiphenyl	7.65	172	402172	34.68	ppm	-0.09
Spiked Amount	50.000		Recovery	=	69.36%	
73) 2,4,6-Tribromophenol	9.94	330	60870	45.69	ppm	-0.10
Spiked Amount	50.000		Recovery	=	91.38%	
85) Terphenyl-d14	13.83	244	421159	41.72	ppm	-0.11
Spiked Amount	50.000		Recovery	=	83.44%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.70	88	75223	22.30	ppm	96
3) Pyridine	1.89	79	152973	20.09	ppm	99
4) N-Nitrosodimethylamine	1.86	42	65749	23.09	ppm	81
6) Indene	4.54	116	314722	29.14	ppm	100
7) Cumene	3.32	105	448045	28.72	ppm	99
9) Phenol	3.84	94	216564	26.03	ppm	77
10) Aniline	3.82	93	265671	29.31	ppm	73
11) bis(2-Chloroethyl)ether	3.90	93	182205	29.76	ppm	96
12) 2-Chlorophenol	3.98	128	214830	34.08	ppm	98
13) Decane	4.04	43	122768	24.47	ppm	94
14) 1,3-Dichlorobenzene	4.15	146	169033	23.93	ppm	99
15) 1,4-Dichlorobenzene	4.24	146	169614	25.00	ppm	97

(#) = qualifier out of range (m) = manual integration
 P103316.D MP4524AP9.M Tue Mar 15 15:00:57 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103316.D Vial: 26
 Acq On : 14 Mar 2016 8:12 pm Operator: linseyk
 Sample : op92023-msd Inst : MSP
 Misc : op92023,ep4538,500 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:58:48 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.41	108	140811	37.56	ppm	97
17) 1,2-Dichlorobenzene	4.43	146	165853	25.77	ppm	99
18) Acetophenone	4.74	105	268477	31.44	ppm	98
19) 2-Methylphenol	4.59	108	195257	36.41	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.58	121	38210	18.98	ppm	# 54
21) 3&4-Methylphenol	4.80	108	216834	37.06	ppm	100
22) n-Nitroso-di-n-propylamine	4.76	70	134663	31.43	ppm	98
23) Hexachloroethane	4.88	201	51479	23.29	ppm	97
26) Nitrobenzene	4.97	77	199283	31.21	ppm	99
27) Quinoline	6.49	129	412857	34.85	ppm	98
28) Isophorone	5.31	82	393717	36.36	ppm	98
29) 2-Nitrophenol	5.42	139	107766	34.40	ppm	92
30) 2,4-Dimethylphenol	5.54	107	243419	45.75	ppm	99
31) Benzoic acid	5.74	105	148907	36.03	ppm	97
32) bis(2-Chloroethoxy)methane	5.65	93	224129	32.77	ppm	99
33) 2,4-Dichlorophenol	5.80	162	195242	42.00	ppm	98
34) 2,6-Dichlorophenol	6.11	162	172885	38.75	ppm	96
36) 1,2,4-Trichlorobenzene	5.89	180	139292	27.04	ppm	95
38) Naphthalene	5.99	128	487106	29.87	ppm	99
39) 4-Chloroaniline	6.10	127	233647	33.70	ppm	99
40) 2,3-Dichloroaniline	7.50	161	224018	37.93	ppm	97
41) Caprolactam	6.61	55	50829	23.26	ppm	93
42) Hexachlorobutadiene	6.21	225	67252	26.27	ppm	99
43) 4-Chloro-3-methylphenol	6.93	107	225576	45.42	ppm	97
44) 2-Methylnaphthalene	7.05	141	296081	32.78	ppm	99
45) 1-Methylnaphthalene	7.20	142	362448	32.89	ppm	99
46) Dimethylnaphthalene	8.03	156	337223	34.99	ppm	99
48) Hexachlorocyclopentadiene	7.32	237	104249	41.86	ppm	100
49) 2,4,6-Trichlorophenol	7.53	196	130068	43.43	ppm	98
50) 2,4,5-Trichlorophenol	7.61	196	134415	43.13	ppm	97
52) 2-Chloronaphthalene	7.80	162	326132	32.48	ppm	97
53) Biphenyl	7.79	154	435343	33.72	ppm	100
54) 2-Nitroaniline	8.00	65	138687	47.76	ppm	98
55) Dimethylphthalate	8.33	163	464284	40.00	ppm	99
56) Acenaphthylene	8.44	152	582128	36.29	ppm	100
57) 2,6-Dinitrotoluene	8.40	165	110745	44.73	ppm	92
58) 3-Nitroaniline	8.66	138	117033	40.16	ppm	97
59) Acenaphthene	8.73	153	369865	37.10	ppm	99
60) 2,4-Dinitrophenol	8.82	184	130768	89.24	ppm	98
61) 4-Nitrophenol	9.08	109	58200	36.69	ppm	93
62) Dibenzofuran	9.01	168	547038	38.94	ppm	99
63) 2,4-Dinitrotoluene	9.03	165	145873	37.99	ppm	88
64) 2,3,4,6-Tetrachlorophenol	9.24	232	105816	44.19	ppm	95
65) Diethylphthalate	9.46	149	468234	40.59	ppm	98
66) Fluorene	9.55	166	453514	39.54	ppm	98
67) 4-Chlorophenyl-phenylether	9.59	204	194459	37.78	ppm	98
68) 4-Nitroaniline	9.64	138	130424	44.55	ppm	97
70) 4,6-Dinitro-2-methylphenol	9.68	198	85742	41.19	ppm	91
71) n-Nitrosodiphenylamine	9.79	169	343978	41.92	ppm	99

(#) = qualifier out of range (m) = manual integration
 P103316.D MP4524AP9.M Tue Mar 15 15:00:57 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103316.D Vial: 26
 Acq On : 14 Mar 2016 8:12 pm Operator: linseyk
 Sample : op92023-msd Inst : MSP
 Misc : op92023,ep4538,500 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 14:58:48 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Mar 15 12:43:35 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
72) 1,2-Diphenylhydrazine	9.84	77	473776	42.14	ppm	98
74) 4-Bromophenyl-phenylether	10.36	248	117810	42.26	ppm	96
75) Hexachlorobenzene	10.43	284	117944	38.97	ppm	99
76) Pentachlorophenol	10.77	266	80774	45.12	ppm	99
77) Phenanthrene	11.07	178	592671	40.56	ppm	98
78) Anthracene	11.15	178	731644	49.94	ppm	99
79) Carbazole	11.45	167	662908	44.17	ppm	99
80) Di-n-butylphthalate	12.14	149	807318	46.15	ppm	100
81) Fluoranthene	13.07	202	689015	43.81	ppm	98
82) Octadecane	11.03	57	219327	38.23	ppm	99
84) Pyrene	13.46	202	701248	42.98	ppm	96
86) Butylbenzylphthalate	14.82	149	369040	46.51	ppm	99
88) Benzo[a]anthracene	15.70	228	588000	43.95	ppm	100
89) 3,3'-Dichlorobenzidine	15.73	252	365390	67.10	ppm	97
90) Chrysene	15.77	228	547662	41.36	ppm	99
91) bis(2-Ethylhexyl)phthalate	15.99	149	488842	39.04	ppm	99
93) Di-n-octylphthalate	17.19	149	824453	42.75	ppm	100
94) Benzo[b]fluoranthene	17.64	252	592479	47.03	ppm	98
95) Benzo[k]fluoranthene	17.69	252	565406	46.59	ppm	99
96) Benzo[a]pyrene	18.17	252	544135	48.97	ppm	98
97) Indeno[1,2,3-cd]pyrene	19.89	276	475784	48.49	ppm	98
99) Dibenz[a,h]anthracene	19.94	278	508776	48.13	ppm	99
100) 7,12-Dimethylbenz(a)anthra	17.65	256	259701	48.69	ppm	98
101) Benzo[g,h,i]perylene	20.26	276	508276	45.24	ppm	99
160) Benzaldehyde	3.70	105	157991	27.68	ppm	99
162) Atrazine	10.70	200	115126	39.60	ppm	92
164) Benzidine	13.38	184	337089	37.35	ppm	100
168) 1,2,4,5-Tetrachlorobenzene	7.32	216	150505	28.69	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103316.D MP4524AP9.M Tue Mar 15 15:00:57 2016

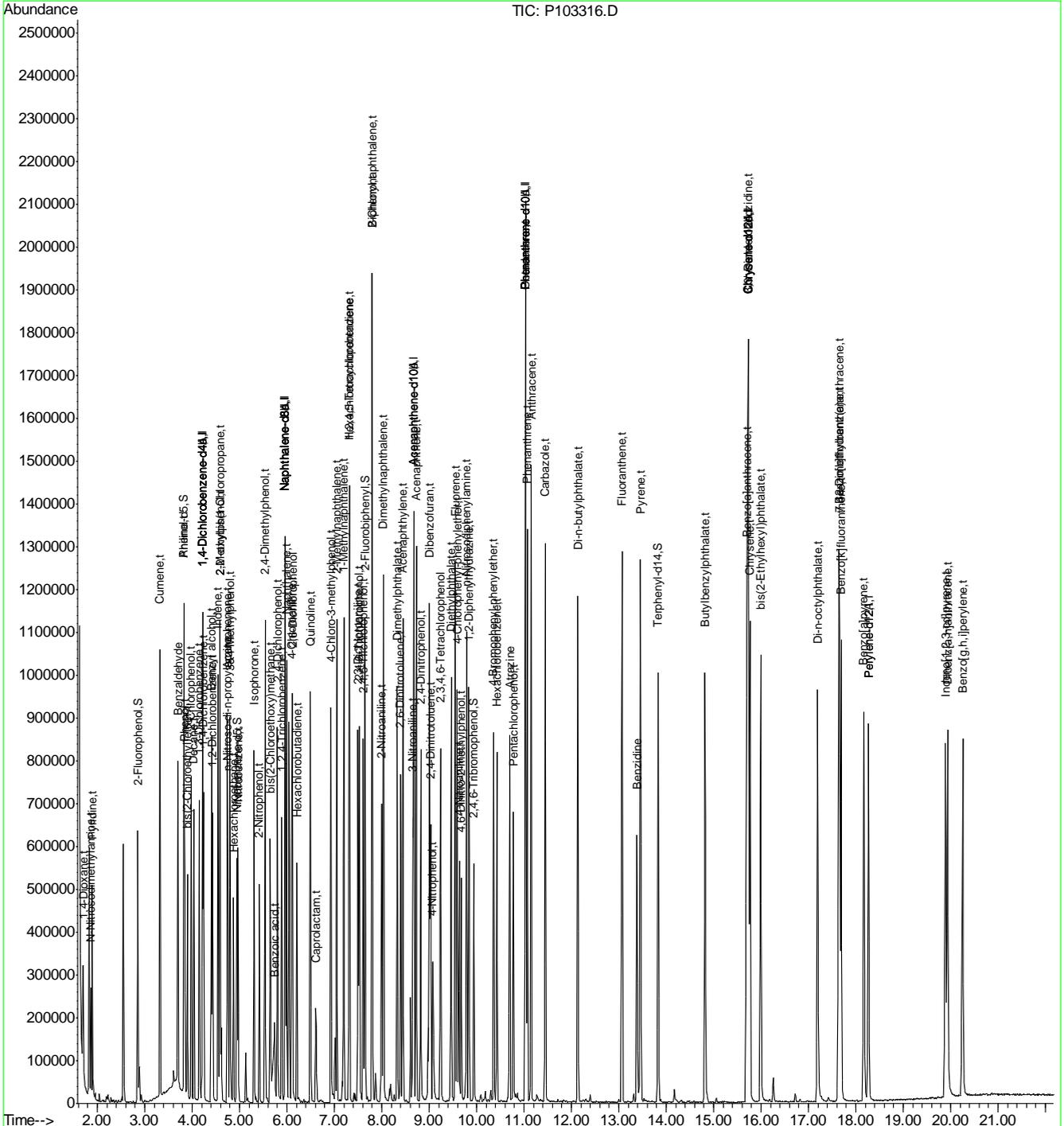
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103316.D
Acq On : 14 Mar 2016 8:12 pm
Sample : op92023-msd
Misc : op92023,ep4538,500
MS Integration Params: rteint.p
Quant Time: Mar 15 15:00 2016

Vial: 26
Operator: linseyk
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4524AP9.RES

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 12:43:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64050.D
 Acq On : 14 Mar 2016 2:05 pm
 Operator : linseyk
 Sample : op92023a-ms
 Misc : op92023a,e4m2839,500
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 15 12:52:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Mar 14 13:08:05 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.899	152	339584	4.00	ppm	# 0.02
12) Fluorene-d10	12.870	176	614665	4.00	ppm	# 0.02
22) Fluoranthene-d10	17.053	212	1078011	4.00	ppm	0.04
28) Benzo(a)pyrene-d12	21.628	264	768499	4.00	ppm	0.04
35) 1-Methylnaphthalene-d10a	9.899	152	339584	4.00	ppm	# 0.02
38) Fluorene-d10a	12.870	176	614665	4.00	ppm	# 0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.231	112	2337577	30.82	ppm	-0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	61.64%#
3) Phenol-d5	5.622	99	3270245	28.32	ppm	0.06
Spiked Amount	50.000			Recovery	=	56.64%
6) Nitrobenzene-d5	7.092	82	3563094	41.59	ppm	0.05
Spiked Amount	50.000			Recovery	=	83.18%
11) 2-Fluorobiphenyl	10.567	172	4520124	31.81	ppm	0.05
Spiked Amount	50.000			Recovery	=	63.62%
17) 2,4,6-Tribromophenol	13.443	330	1463643	53.65	ppm	0.05
Spiked Amount	50.000			Recovery	=	107.30%
25) Terphenyl-d14	17.844	244	6968767	40.13	ppm	0.04
Spiked Amount	50.000			Recovery	=	80.26%
Target Compounds						
4) Phenol	5.636	94	489232	4.05	ppm	Qvalue 91
5) bis(2-Chloroethyl)ether	5.718	93	73130	0.82	ppm	# 37
7) Naphthalene	8.454	128	240289	0.81	ppm	98
8) Hexachlorobutadiene	8.732	225	34701	0.77	ppm	87
9) 2-Methylnaphthalene	9.780	142	101389	0.93	ppm	# 52
13) Acenaphthylene	11.546	152	191549	0.96	ppm	95
14) Acenaphthene	11.890	153	100475	0.89	ppm	77
15) Dibenzofuran	12.263	168	190902	0.63	ppm	# 1
16) Fluorene	12.942	166	153759	0.82	ppm	# 64
18) Hexachlorobenzene	14.042	284	57995	0.83	ppm	97
19) Pentachlorophenol	14.475	266	257922	7.96	ppm	90
20) Phenanthrene	14.830	178	286174	0.94	ppm	90
21) Anthracene	14.938	178	3008011	10.98	ppm	99
23) Fluoranthene	17.072	202	290640	0.78	ppm	93
24) Pyrene	17.467	202	333257	0.94	ppm	96
26) Benzo[a]anthracene	19.557	228	248567	0.86	ppm	# 83
27) Chrysene	19.614	228	240810	0.77	ppm	80
29) Benzo[b]fluoranthene	21.201	252	225469	0.76	ppm	97
30) Benzo[k]fluoranthene	21.242	252	188072	0.75	ppm	99
31) Benzo[a]pyrene	21.656	252	190147	0.73	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.211	276	149866	0.54	ppm	94
33) Dibenz[a,h]anthracene	23.253	278	124668	0.54	ppm	96
34) Benzo[g,h,i]perylene	23.624	276	127199	0.51	ppm	100
36) 1,4-Dioxane	2.378	88	300458	9.63	ppm	81
39) 4,6-dinitro-2-methylph...	13.109	198	175359	7.39	ppm	# 47
40) 1,2-Diphenylhydrazine	13.276	77	141635	0.84	ppm	95
41) n-nitrosodiphenylamine	13.228	169	124051	1.21	ppm	# 62

9.4.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
Data File : 4m64050.D
Acq On : 14 Mar 2016 2:05 pm
Operator : linseyk
Sample : op92023a-ms
Misc : op92023a,e4m2839,500
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 15 12:52:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Mar 14 13:08:05 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

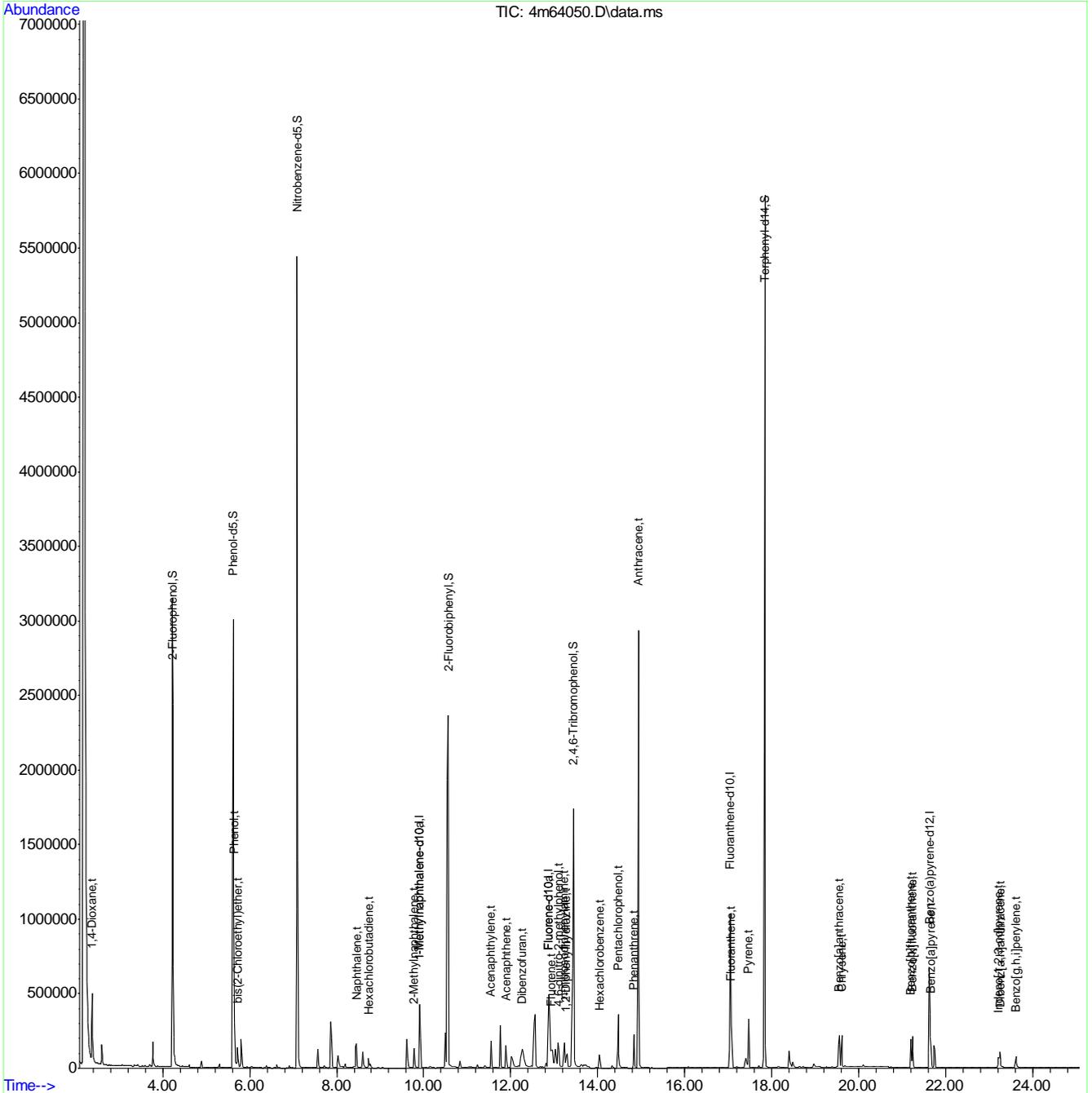
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.4.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64050.D
 Acq On : 14 Mar 2016 2:05 pm
 Operator : linseyk
 Sample : op92023a-ms
 Misc : op92023a,e4m2839,500
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 15 12:52:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Mar 14 13:08:05 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64051.D
 Acq On : 14 Mar 2016 2:35 pm
 Operator : linseyk
 Sample : op92023a-msd
 Misc : op92023a,e4m2839,500
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 15 12:54:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 15 12:53:54 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.923	152	332915	4.00	ppm	0.05
12) Fluorene-d10	12.870	176	600065	4.00	ppm	# 0.02
22) Fluoranthene-d10	17.053	212	1075375	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.628	264	763935	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.923	152	332915	4.00	ppm	# 0.05
38) Fluorene-d10a	12.870	176	600065	4.00	ppm	# 0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.231	112	2431245	32.70	ppm	-0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	65.40%#
3) Phenol-d5	5.622	99	3449036	30.47	ppm	0.06
Spiked Amount	50.000			Recovery	=	60.94%
6) Nitrobenzene-d5	7.092	82	3639700	43.33	ppm	0.05
Spiked Amount	50.000			Recovery	=	86.66%
11) 2-Fluorobiphenyl	10.567	172	4962757	35.63	ppm	0.05
Spiked Amount	50.000			Recovery	=	71.26%
17) 2,4,6-Tribromophenol	13.443	330	1507205	56.59	ppm	0.05
Spiked Amount	50.000			Recovery	=	113.18%
25) Terphenyl-d14	17.844	244	7182905	41.46	ppm	0.00
Spiked Amount	50.000			Recovery	=	82.92%
Target Compounds						
4) Phenol	5.636	94	562292	4.75	ppm	Qvalue 87
5) bis(2-Chloroethyl)ether	5.718	93	73745	0.84	ppm	# 35
7) Naphthalene	8.454	128	242973	0.84	ppm	98
8) Hexachlorobutadiene	8.732	225	34707	0.79	ppm	86
9) 2-Methylnaphthalene	9.779	142	99934	0.93	ppm	99
13) Acenaphthylene	11.545	152	203250	1.04	ppm	96
14) Acenaphthene	11.890	153	102838	0.94	ppm	77
15) Dibenzofuran	12.263	168	207994	0.71	ppm	# 1
16) Fluorene	12.941	166	164807	0.90	ppm	# 65
18) Hexachlorobenzene	14.042	284	60898	0.89	ppm	98
19) Pentachlorophenol	14.475	266	298651	9.42	ppm	88
20) Phenanthrene	14.830	178	295964	1.00	ppm	90
21) Anthracene	14.938	178	3097368	11.58	ppm	99
23) Fluoranthene	17.072	202	295101	0.80	ppm	93
24) Pyrene	17.467	202	329577	0.93	ppm	92
26) Benzo[a]anthracene	19.557	228	254704	0.88	ppm	# 86
27) Chrysene	19.613	228	242268	0.78	ppm	83
29) Benzo[b]fluoranthene	21.215	252	218115	0.74	ppm	89
30) Benzo[k]fluoranthene	21.242	252	193372	0.78	ppm	95
31) Benzo[a]pyrene	21.655	252	183243	0.71	ppm	97
32) Indeno[1,2,3-cd]pyrene	23.225	276	160246	0.58	ppm	96
33) Dibenz[a,h]anthracene	23.253	278	132083	0.57	ppm	94
34) Benzo[g,h,i]perylene	23.624	276	135029	0.55	ppm	99
36) 1,4-Dioxane	2.378	88	317463	10.38	ppm	# 80
39) 4,6-dinitro-2-methylph...	13.109	198	205926	8.61	ppm	# 47
40) 1,2-Diphenylhydrazine	13.276	77	149531	0.91	ppm	95
41) n-nitrosodiphenylamine	13.228	169	130099	1.30	ppm	# 61

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
Data File : 4m64051.D
Acq On : 14 Mar 2016 2:35 pm
Operator : linseyk
Sample : op92023a-msd
Misc : op92023a,e4m2839,500
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 15 12:54:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

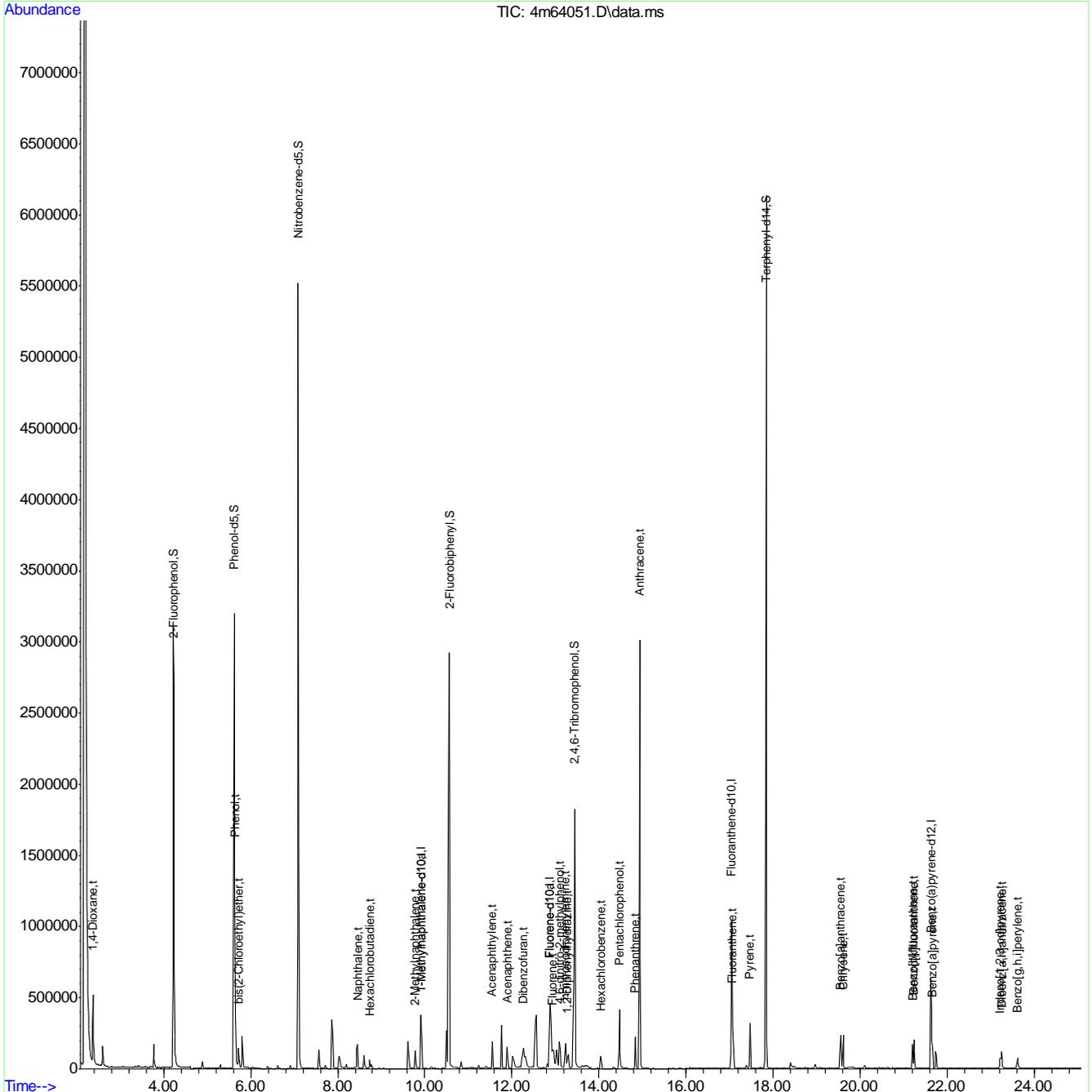
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
Data File : 4m64051.D
Acq On : 14 Mar 2016 2:35 pm
Operator : linseyk
Sample : op92023a-msd
Misc : op92023a,e4m2839,500
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 15 12:54:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 15 12:53:54 2016
Response via : Initial Calibration

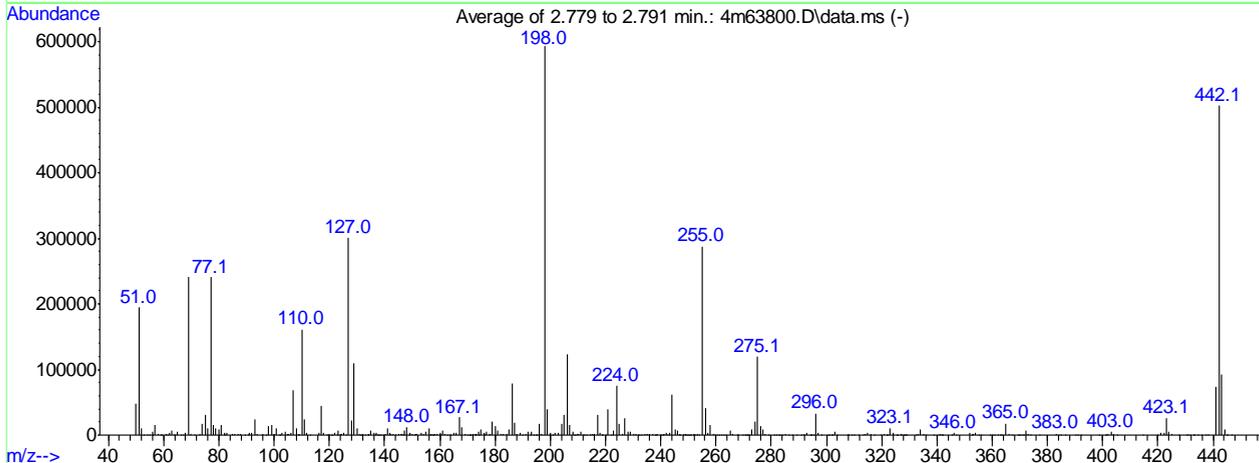
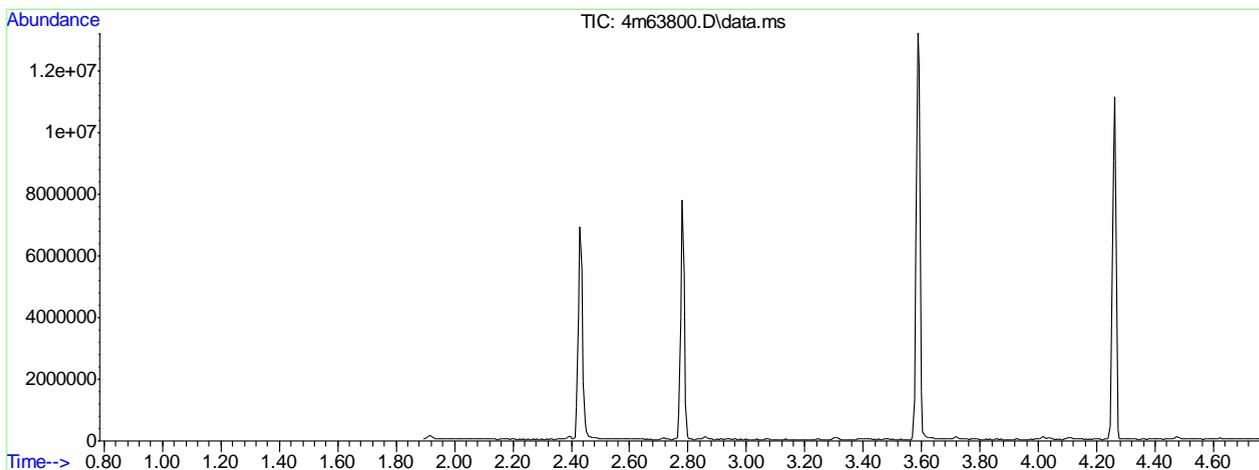


9.4.4
9

DFTPP

Data File : C:\msdchem\1\DATA\E4M2828\4m63800.D Vial: 1
 Acq On : 29 Feb 2016 3:44 pm Operator: linseyk
 Sample : dftpp Inst : GCMS4M
 Misc : op91493a,e4m2828 Multiplr: 1.00
 MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
 Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um



AutoFind: Scans 156, 157, 158; Background Corrected with Scan 151

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	32.8	194405	PASS
68	69	0.00	2	1.2	2903	PASS
69	198	0.00	100	40.5	240415	PASS
70	69	0.00	2	0.5	1258	PASS
127	198	40	60	50.7	300819	PASS
197	198	0.00	1	0.4	2515	PASS
198	198	100	100	100.0	593003	PASS
199	198	5	9	6.6	39222	PASS
275	198	10	30	20.2	119693	PASS
365	198	1	100	2.9	17294	PASS
441	443	0.01	100	78.9	73077	PASS
442	198	40	100	84.8	502827	PASS
443	442	17	23	18.4	92581	PASS

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	48787	59.20	85	69.00	240415	80.95	16163
51.05	194405	61.00	2070	70.00	1258	82.00	3553
52.10	9556	61.30	89	71.10	123	82.20	265
52.95	348	62.00	3006	72.95	2259	83.00	3760
54.00	272	63.00	6703	74.05	16947	84.90	2488
54.95	415	63.90	306	75.00	31509	85.90	1096
56.00	4892	64.20	410	76.10	10475	87.05	1815
56.20	352	65.05	4536	77.10	241139	87.95	968
57.00	15055	66.20	217	78.10	16050	89.20	129
58.10	975	66.95	685	79.00	11000	90.50	89
58.95	325	68.00	2903	80.05	8814	91.00	3077

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.90	3485	102.00	366	111.00	24527	122.80	449
93.00	23958	102.95	3047	111.95	3392	123.05	6117
94.05	2031	103.95	4473	112.95	913	123.90	1164
96.05	2287	104.90	1902	116.05	3575	124.20	1435
97.10	371	105.10	2040	117.00	44407	125.00	4147
98.00	13914	106.00	2640	118.05	2938	126.20	330
99.00	15470	107.00	68939	119.00	257	127.00	300819
99.80	151	108.00	10827	120.10	948	128.00	22283
100.05	1005	108.80	105	120.80	315	129.00	109962
100.95	9582	109.05	1935	121.30	220	130.00	9584
101.80	563	110.00	161491	122.05	3503	130.90	1139

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.10	418	137.90	166	145.95	2295	153.10	3218
131.90	86	138.10	73	146.20	1450	154.05	1869
132.25	1193	138.80	513	146.60	323	155.05	6025
133.05	495	139.60	586	147.05	6568	156.00	10856
134.00	2277	140.10	1032	148.00	12093	156.70	96
134.30	417	141.00	10943	148.80	296	157.00	1082
135.00	7475	141.95	3040	149.05	2861	157.20	793
136.00	2804	142.30	1234	150.10	1034	157.80	812
136.60	137	143.05	2421	151.00	690	158.10	1463
137.00	3819	143.95	846	151.30	964	159.10	1928
137.60	705	144.95	928	151.80	1359	159.60	191

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.05	3190	169.00	2379	175.00	8139	184.05	1404
160.30	439	170.05	760	176.10	3861	185.05	9103
160.95	6526	170.60	245	176.40	1016	186.10	78028
161.95	1538	170.90	627	177.05	4380	187.00	19041
162.70	303	171.10	468	177.90	1361	188.05	1812
163.50	164	171.95	2033	178.10	1333	189.05	2922
163.95	437	172.70	252	179.00	20045	190.00	627
165.00	3102	173.00	1382	180.00	14616	190.95	1561
165.95	3236	173.20	1015	181.00	6874	192.00	5557
167.05	27026	174.00	5348	182.00	1176	192.80	473
167.95	12594	174.20	691	183.15	1109	193.05	5709

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
194.10	799	203.05	3781	211.70	441	219.90	416
194.95	759	204.00	17756	212.10	371	221.00	38595
195.30	150	205.05	31385	213.00	136	222.10	252
196.00	16345	206.10	123880	214.40	80	223.00	7695

196.70	2515	207.05	15323	215.05	1311	224.00	75035
198.00	593003	208.05	4376	215.70	74	225.05	16475
199.00	39222	208.65	634	216.00	2099	226.05	2588
199.80	229	209.20	361	217.00	30803	227.10	25800
200.05	3221	209.95	1091	218.00	4093	227.95	4814
200.70	228	210.30	2488	218.60	187	229.05	4798
201.60	3648	211.00	5438	218.95	447	230.00	1193

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.05	2460	239.80	366	247.00	1193	252.35	1060
231.70	74	240.10	639	247.90	199	252.70	613
232.20	398	240.80	624	248.20	444	253.35	1885
232.95	255	241.05	1402	248.80	95	253.80	280
234.05	2228	242.00	3675	249.05	1852	255.00	287547
235.00	2147	242.20	188	249.30	77	256.05	41209
235.95	1273	243.10	3998	249.90	329	257.05	3124
237.00	2505	244.10	62156	250.10	456	258.00	14879
238.00	383	245.05	7841	250.70	488	259.00	2126
238.20	158	246.00	7345	251.10	81	259.60	426
238.85	1012	246.70	780	251.60	171	260.10	115

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
261.10	143	271.15	737	282.00	118	293.00	2842
261.90	70	271.60	81	282.80	801	293.90	560
262.70	74	272.15	831	283.20	333	294.30	456
263.70	597	273.05	8787	284.05	571	294.60	382
265.00	6520	274.05	19905	285.05	1474	295.10	240
265.90	1034	275.05	119693	286.15	653	296.00	33020
267.70	69	276.00	14423	287.70	390	297.00	4114
268.05	430	277.05	9024	289.00	565	298.05	290
269.75	290	277.90	1425	290.70	271	300.70	70
270.40	112	279.05	288	291.50	130	301.00	217
270.80	529	281.10	88	292.00	655	301.80	99

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
302.10	175	314.95	4088	326.85	1783	338.90	188
303.05	4786	315.95	2007	327.10	206	340.30	232
303.95	828	317.10	267	327.90	647	341.10	1995
307.30	74	319.90	269	328.15	568	341.80	135
307.80	348	321.05	1298	328.70	73	342.20	141
308.10	855	321.70	666	328.95	179	345.20	119
309.00	255	322.15	362	332.15	911	346.00	2922
309.95	771	323.05	10647	333.05	1090	346.90	422
311.70	307	324.05	2661	334.00	7951	351.95	3893
313.10	143	325.20	122	335.05	2521	352.50	209
314.05	1483	325.95	431	335.95	383	352.90	1360

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.10	1302	365.00	17294	377.00	536	402.05	2596
354.05	3587	366.00	2513	383.00	1781	403.00	4532
355.05	436	367.20	72	384.05	190	403.95	1959
356.10	146	369.20	68	384.95	208	405.25	180
359.00	660	369.80	147	386.50	227	414.65	175
360.00	91	370.10	320	390.05	706	420.00	430
360.90	176	370.95	808	390.80	118	420.95	4103
361.90	71	371.20	410	391.95	400	422.10	3358
363.00	96	372.05	7317	398.60	133	423.10	26258
363.25	381	372.95	2356	400.90	327	424.00	4884
363.60	228	374.00	434	401.10	284	425.05	1036

Average of 2.779 to 2.791 min.: 4m63800.D\data.ms

dftpp

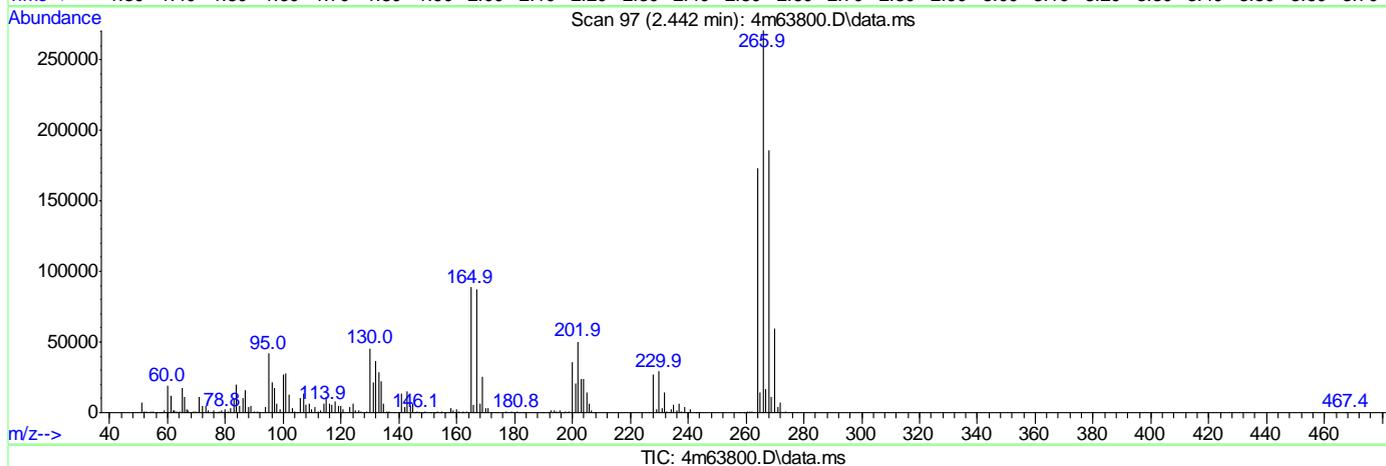
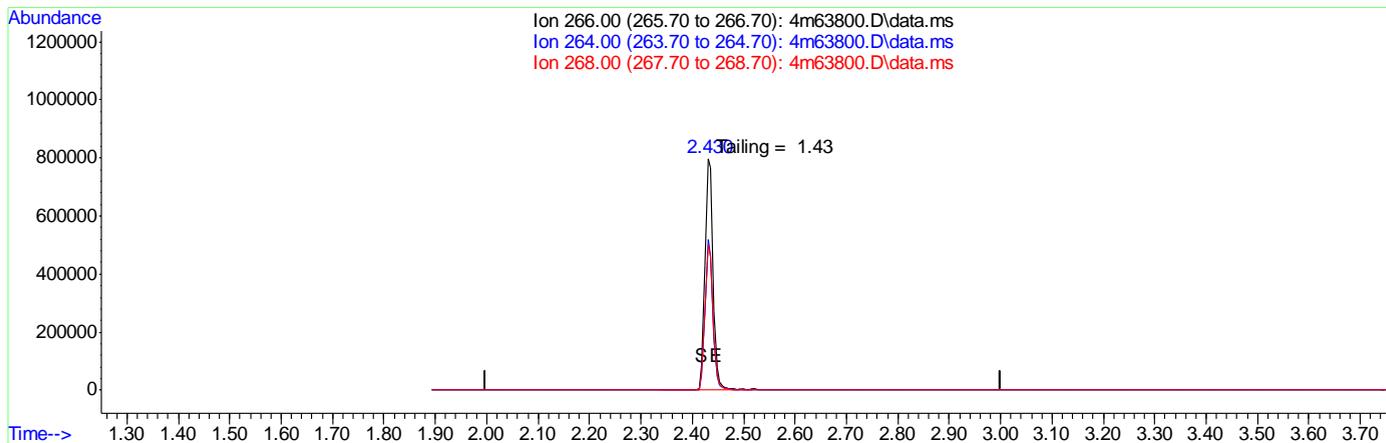
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
427.70	394	442.10	502827				
430.40	307	443.10	92581				
430.70	83	444.10	8895				
431.60	208	445.00	153				
433.00	97	445.20	268				
433.30	107	446.50	292				
434.60	84						
435.50	483						
437.30	140						
438.00	203						
441.05	73077						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63800.D
 Acq On : 29 Feb 2016 3:44 pm
 Operator : linseyk
 Sample : dftpp
 Misc : op91493a,e4m2828
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 29 15:50:43 2016
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Jul 29 12:02:51 2013
 Response via : Initial Calibration



(1) pentachlorophenol (t)

2.500min (-2.500) 0.00ppb

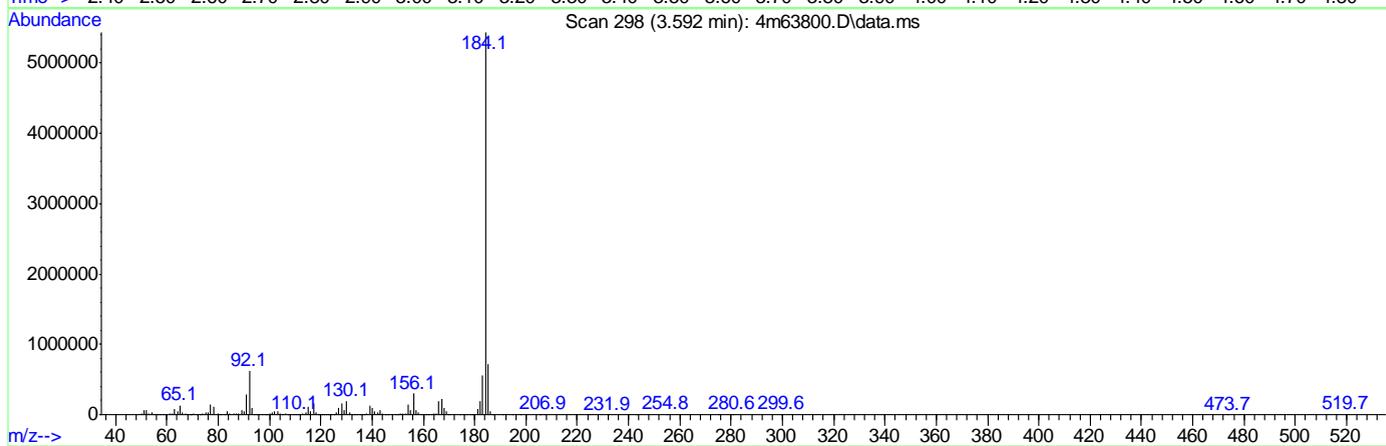
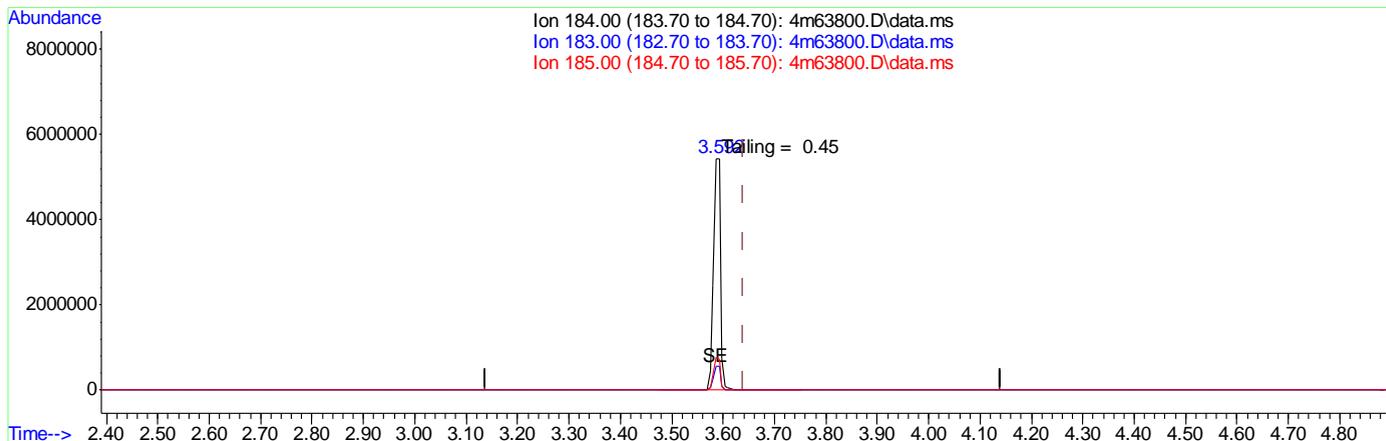
response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63800.D
 Acq On : 29 Feb 2016 3:44 pm
 Operator : linseyk
 Sample : dftpp
 Misc : op91493a,e4m2828
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 29 15:50:43 2016
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Jul 29 12:02:51 2013
 Response via : Initial Calibration



TIC: 4m63800.D\data.ms

(2) benzidine (t)

3.591min (-0.049) 848.85ppb

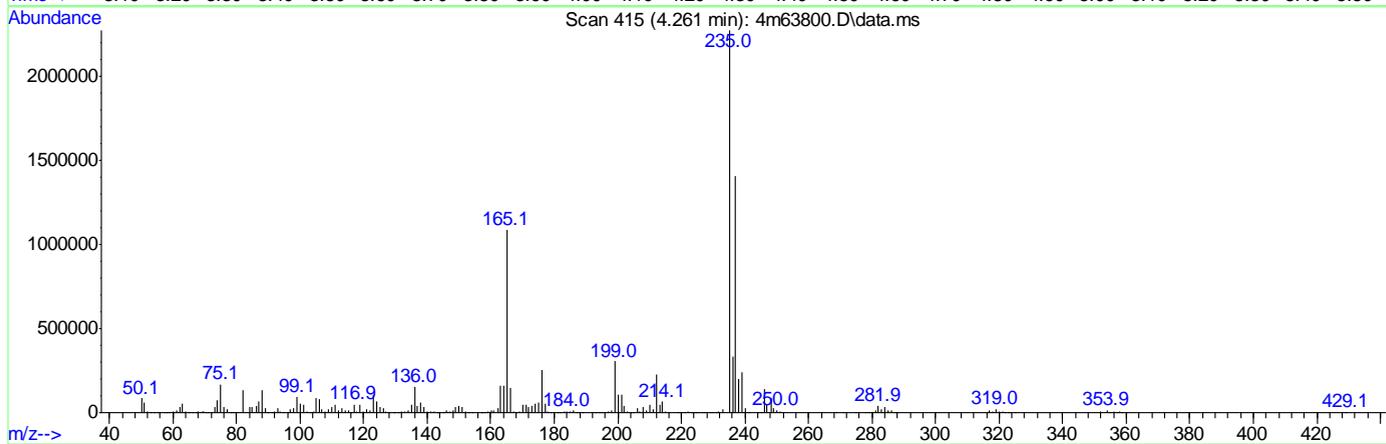
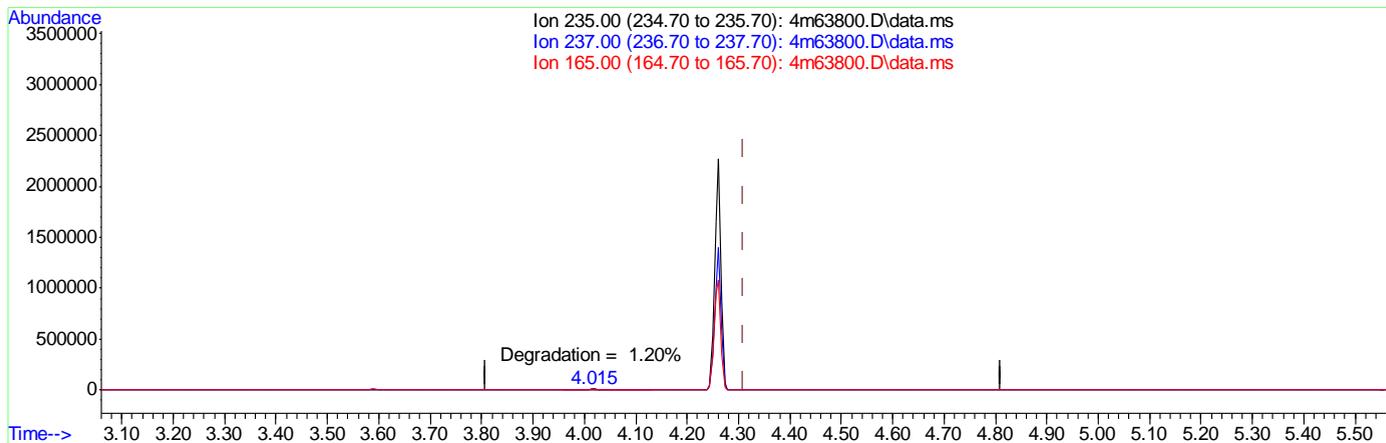
response 50664310

Ion	Exp%	Act%
184.00	100	100
183.00	10.60	10.38
185.00	13.40	13.78
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63800.D
 Acq On : 29 Feb 2016 3:44 pm
 Operator : linseyk
 Sample : dftpp
 Misc : op91493a,e4m2828
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 29 15:50:43 2016
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Jul 29 12:02:51 2013
 Response via : Initial Calibration



TIC: 4m63800.D\data.ms

(3) ddt (t)

4.263min (-0.047) 676.77ppb

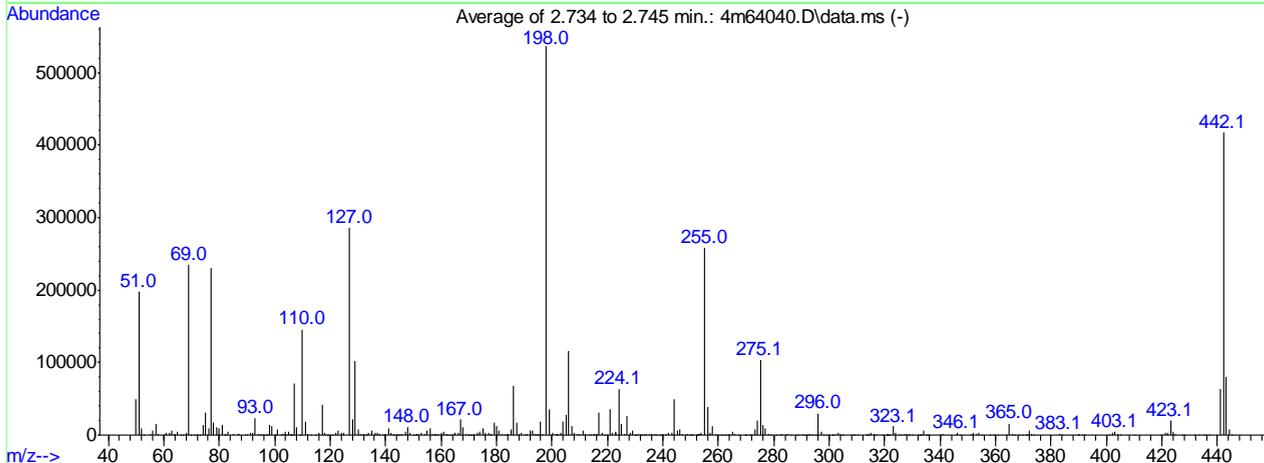
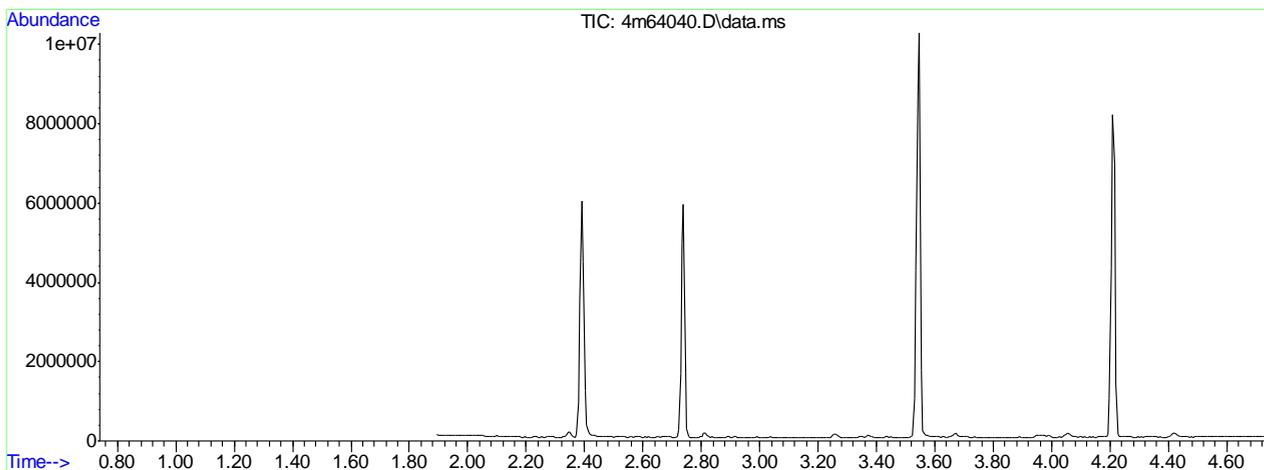
response 18730279

Ion	Exp%	Act%
235.00	100	100
237.00	63.70	62.65
165.00	48.70	50.73
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E4M2839\4m64040.D Vial: 1
 Acq On : 14 Mar 2016 9:27 am Operator: linseyk
 Sample : dftpp Inst : GCMS4M
 Misc : op91969a,e4m2839 Multiplr: 1.00
 MS Integration Params: events3.e

Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M (ChemStation Integrator)
 Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um



AutoFind: Scans 148, 149, 150; Background Corrected with Scan 142

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.8	197374	PASS
68	69	0.00	2	1.4	3348	PASS
69	198	0.00	100	43.7	234363	PASS
70	69	0.00	2	0.3	621	PASS
127	198	40	60	53.3	285539	PASS
197	198	0.00	1	0.4	1962	PASS
198	198	100	100	100.0	535936	PASS
199	198	5	9	6.6	35372	PASS
275	198	10	30	19.3	103253	PASS
365	198	1	100	3.0	16128	PASS
441	443	0.01	100	78.6	63608	PASS
442	198	40	100	77.9	417280	PASS
443	442	17	23	19.4	80936	PASS

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	49494	63.05	6411	72.30	212	82.15	1858
51.05	197374	63.80	147	73.00	455	83.05	4591
52.05	9585	64.05	911	74.05	13947	85.00	2039
52.90	146	65.10	4902	75.05	30608	86.90	835
55.00	1357	66.05	392	76.10	9354	87.20	910
56.05	5885	67.00	211	77.10	229904	89.10	228
57.00	15485	68.10	3348	78.05	16289	90.20	79
58.00	1673	69.00	234363	79.00	11325	91.05	3189
59.95	358	69.95	621	80.00	9048	92.05	2628
61.05	2450	70.95	371	81.00	14265	93.05	23434
62.05	2631	71.80	107	81.90	807	94.00	1613

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.80	203	102.90	841	110.00	145539	121.00	225
95.05	44	103.10	1998	111.00	19131	122.05	3515
96.00	1176	104.00	4265	112.00	2294	123.00	6419
97.05	61	104.20	482	113.10	113	124.05	3077
97.30	426	105.05	4204	114.95	517	125.00	2996
98.00	14621	105.70	117	116.00	3041	127.00	285539
99.00	11727	106.00	1493	117.00	41026	128.00	21081
100.00	570	106.20	167	118.05	3048	129.00	102811
100.40	290	107.00	70723	118.70	257	130.00	8150
101.00	7753	108.05	11070	119.10	570	130.95	1480
102.00	581	109.05	816	120.00	558	131.70	506

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.00	867	141.00	9321	149.00	2884	157.90	1074
132.80	106	142.00	3373	149.95	690	158.20	633
133.15	389	142.80	387	150.90	358	159.10	1234
134.00	2891	143.05	2164	151.25	1301	160.05	2945
135.00	6934	143.80	127	151.65	1652	161.00	4967
136.10	2667	144.20	261	153.05	3189	161.85	938
137.10	3651	144.80	268	154.00	2336	162.10	510
137.80	879	145.00	307	155.00	5915	163.05	702
139.00	279	146.05	1407	156.05	10103	163.80	156
139.40	121	147.00	4723	157.05	1906	164.15	716
140.00	904	148.00	11646	157.70	647	165.00	3642

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
166.05	3251	175.00	8715	184.15	1018	194.20	215
167.00	21098	176.10	3350	185.10	7959	194.85	419
168.00	10854	177.00	3920	186.05	68784	195.10	916
168.90	1794	177.90	420	187.10	17231	196.00	18459
169.70	223	178.05	968	188.05	1834	196.70	1962
170.05	331	179.00	16403	189.00	3010	198.00	535936
170.70	391	180.05	12150	190.00	628	199.00	35372
171.00	784	181.00	6143	191.10	2191	200.10	3123
171.95	1617	182.05	1208	192.05	5671	201.35	2319
173.00	3198	182.90	596	193.00	6177	201.70	1050
174.10	5067	183.60	81	193.75	1078	202.00	393

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
203.00	3286	214.10	84	222.90	2706	231.80	270
204.10	18401	214.80	273	223.05	4880	232.00	471
205.10	27599	215.10	958	224.10	64083	232.20	91
206.10	116112	215.90	299	225.10	15899	232.95	629

207.00	13130	216.20	979	226.05	1308	233.95	1681
208.05	2855	217.00	30721	227.00	25613	235.05	2032
209.05	1506	218.00	3346	228.05	2497	235.80	280
210.20	2365	218.90	224	229.00	5863	236.05	1016
211.10	5499	219.90	306	229.80	522	237.00	1893
212.10	1158	221.05	35987	230.20	388	237.75	244
213.10	219	221.70	2834	230.95	2190	238.70	136

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
239.10	742	249.70	175	257.00	2555	265.95	1416
239.80	842	250.20	465	258.00	12114	266.95	173
241.10	930	251.05	843	258.95	2341	269.60	81
242.10	3111	251.95	643	260.00	565	269.80	163
243.05	3718	252.20	347	261.00	275	270.15	271
244.10	49101	252.50	201	262.05	186	271.00	403
245.10	6654	252.80	917	262.85	240	271.60	91
246.00	8022	253.25	1105	263.30	130	272.10	780
247.00	2206	253.95	2511	263.75	384	273.05	7519
247.95	308	255.00	257899	264.00	261	274.10	20057
248.95	1205	256.00	38496	265.00	4855	275.05	103253

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.10	13846	288.90	293	299.00	157	310.00	693
277.00	8892	290.10	382	299.90	81	313.15	378
278.00	1150	291.05	185	301.00	522	313.80	268
279.05	410	291.75	230	301.20	84	314.05	1387
280.90	101	292.15	637	302.10	649	315.00	3420
282.05	235	292.95	2353	303.10	3456	316.00	1570
283.10	1198	294.05	383	304.05	1317	316.20	422
284.05	719	295.10	254	304.90	399	317.15	155
285.05	2137	296.00	29725	308.00	583	319.00	91
286.20	73	297.10	4417	308.70	211	320.80	345
288.15	173	297.90	502	309.05	157	320.90	236

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.05	847	329.90	78	340.90	1174	359.70	157
321.40	235	332.10	586	345.70	423	360.70	221
322.00	423	332.60	137	346.05	2375	363.80	181
323.10	11942	333.00	801	347.10	630	365.00	16128
324.05	2483	333.30	402	351.10	247	365.95	2309
325.00	240	333.95	6129	352.05	3690	367.00	281
325.90	548	334.95	509	353.10	2320	368.50	118
327.00	2317	335.20	513	354.05	3604	369.85	244
327.90	916	335.80	107	355.05	620	370.80	755
328.70	111	336.00	139	357.80	134	371.30	247
328.90	78	340.05	316	359.15	279	372.10	6042

Average of 2.734 to 2.745 min.: 4m64040.D\data.ms
dftpp

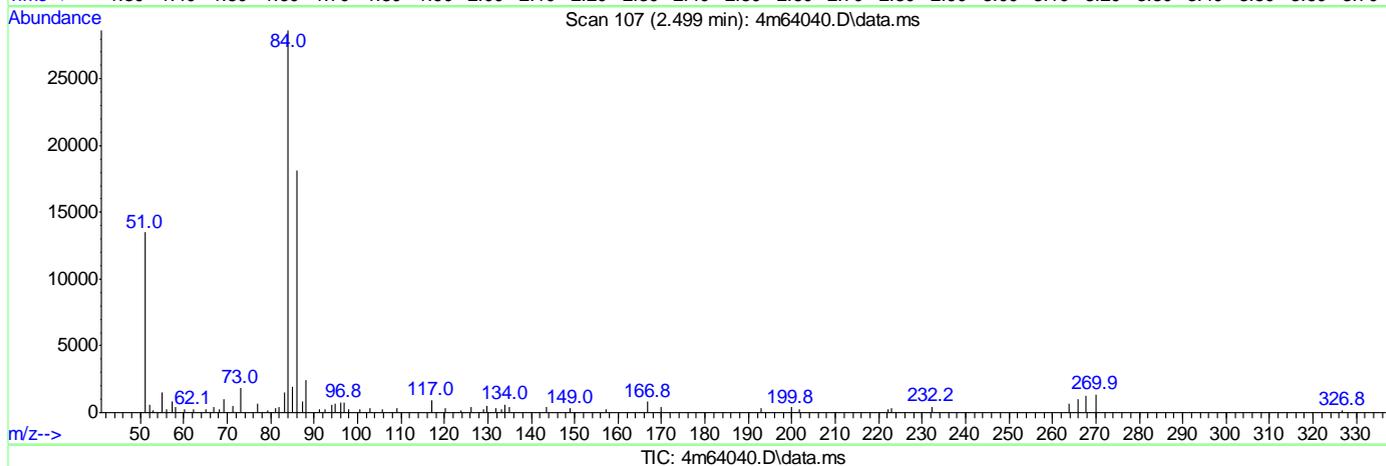
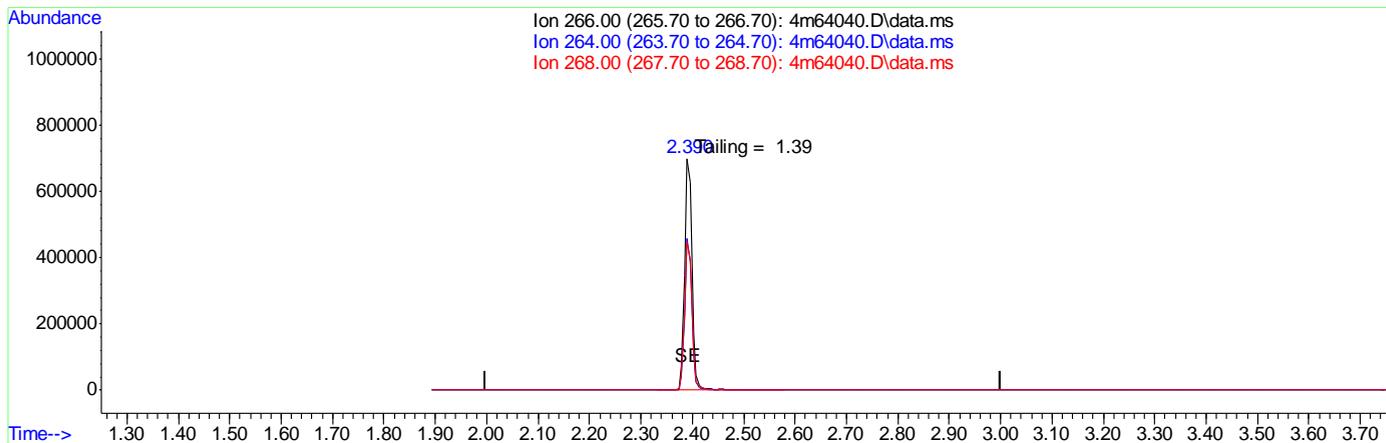
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.00	1424	403.10	4086	428.10	83		
373.90	73	404.10	1635	431.50	77		
383.05	1495	404.95	220	433.20	144		
383.90	203	409.95	191	434.80	162		
389.80	113	419.50	94	435.70	80		
390.05	883	421.05	3177	436.80	69		
391.05	615	422.00	2433	441.10	63608		
391.90	126	423.10	20046	442.10	417280		
392.10	165	423.95	3975	443.10	80936		
401.05	550	425.00	989	444.10	7941		
402.00	2697	427.40	113	444.90	176		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64040.D
 Acq On : 14 Mar 2016 9:27 am
 Operator : linseyk
 Sample : dftpp
 Misc : op91969a,e4m2839
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 09:33:13 2016
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Jul 29 12:02:51 2013
 Response via : Initial Calibration



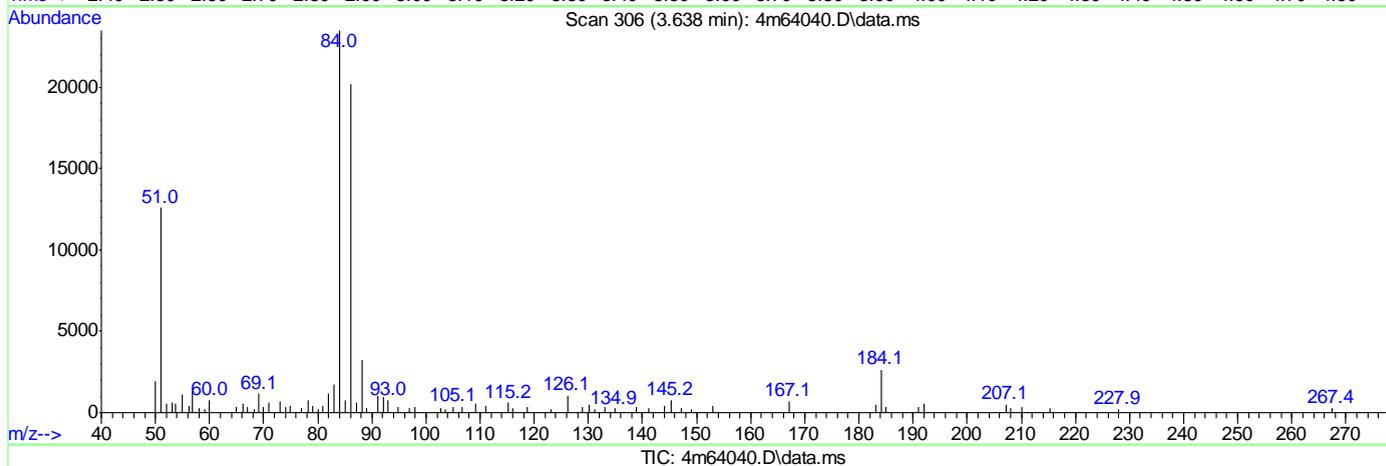
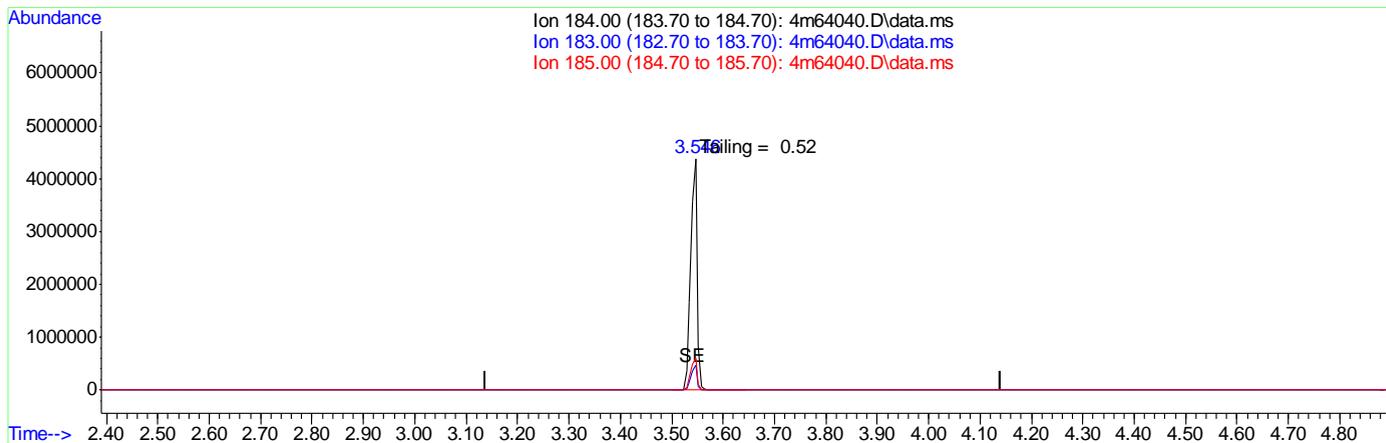
(1) pentachlorophenol (t)
 2.500min (-2.500) 0.00ppb
 response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	58.00	0.00#
268.00	62.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64040.D
 Acq On : 14 Mar 2016 9:27 am
 Operator : linseyk
 Sample : dftpp
 Misc : op91969a,e4m2839
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 09:33:13 2016
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Jul 29 12:02:51 2013
 Response via : Initial Calibration



(2) benzidine (t)

3.640min (-3.640) 0.00ppb

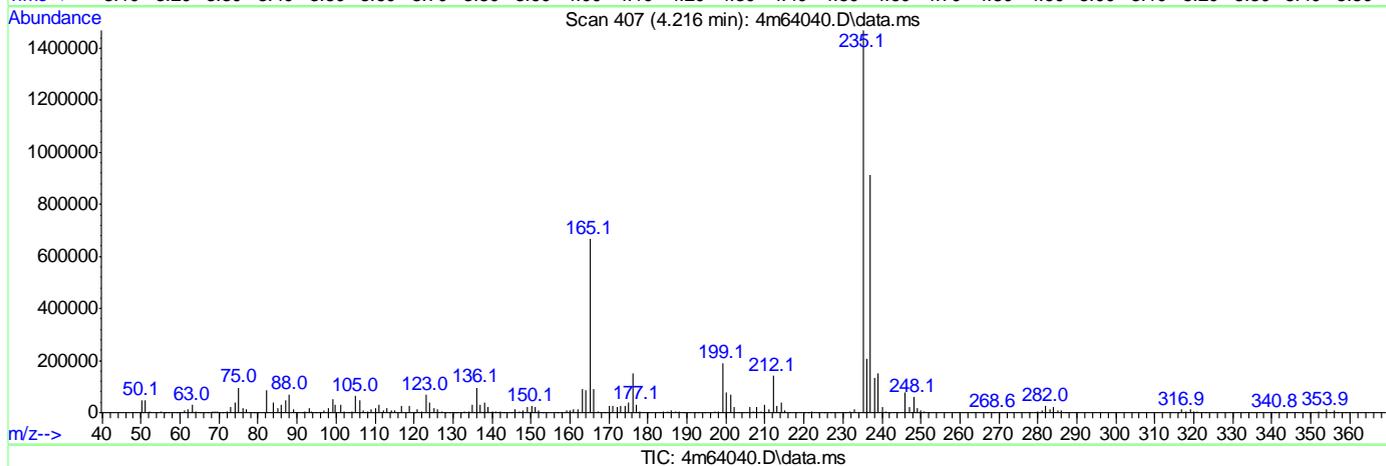
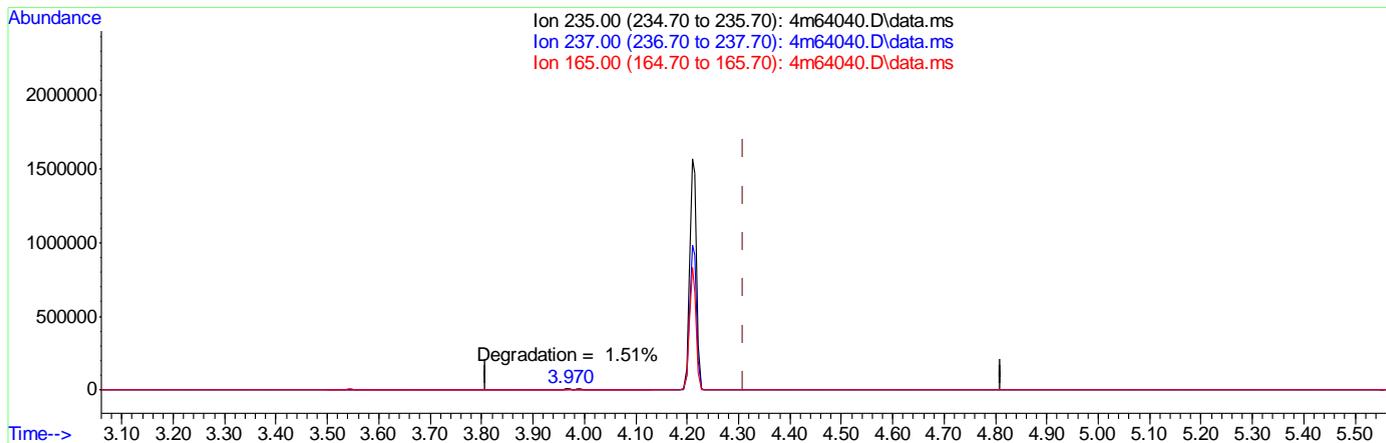
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	10.60	0.00#
185.00	13.40	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64040.D
 Acq On : 14 Mar 2016 9:27 am
 Operator : linseyk
 Sample : dftpp
 Misc : op91969a,e4m2839
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 09:33:13 2016
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4M.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Jul 29 12:02:51 2013
 Response via : Initial Calibration



(3) ddt (t)

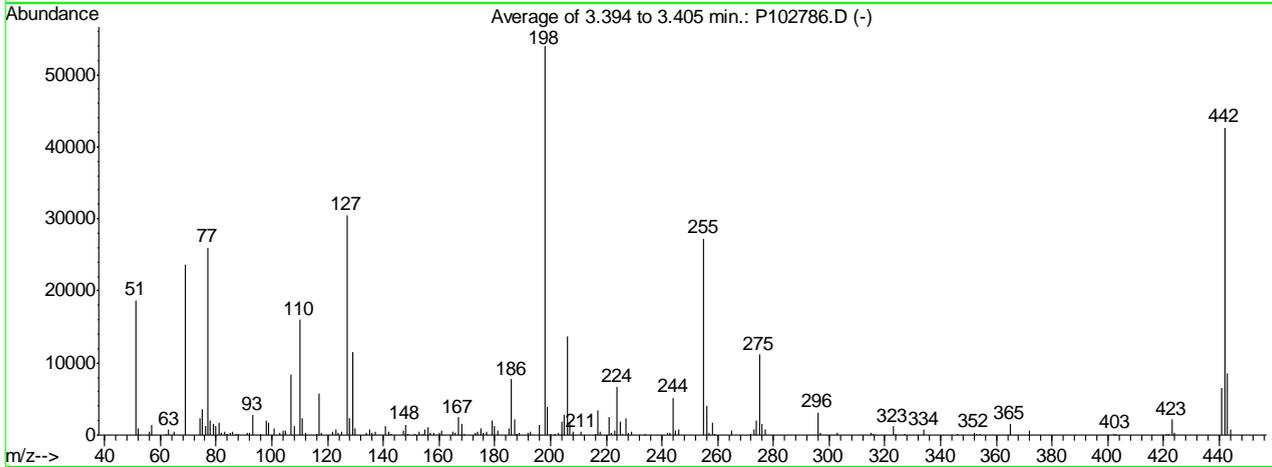
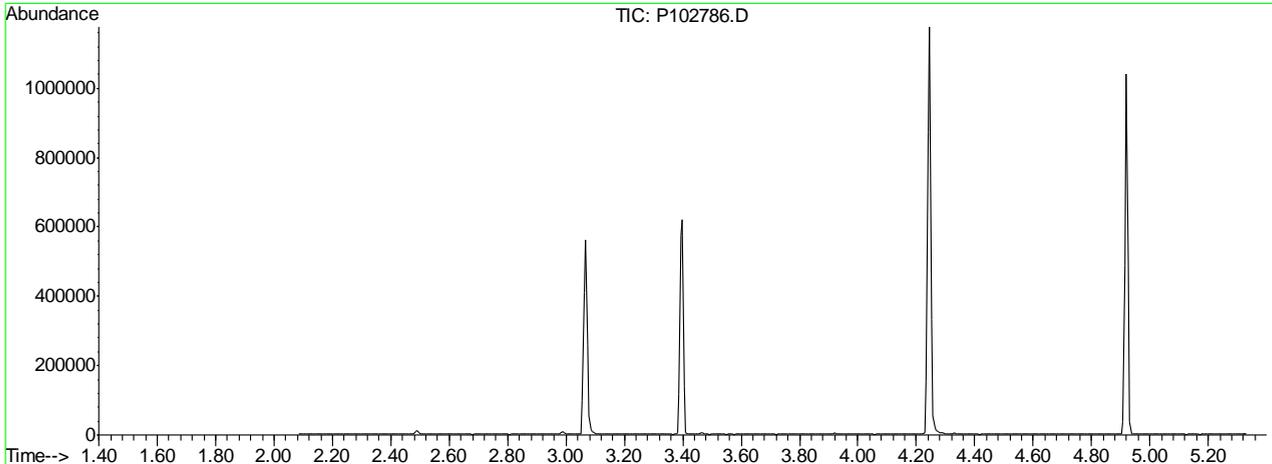
4.214min (-0.096) 530.30ppb

response 14676622

Ion	Exp%	Act%
235.00	100	100
237.00	63.70	63.15
165.00	48.70	50.54
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
 Acq On : 24 Feb 2016 1:55 am Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 230, 231, 232; Background Corrected with Scan 225

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	34.6	18668	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.0	23706	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	56.7	30563	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	53930	PASS
199	198	5	9	7.3	3929	PASS
275	198	10	30	20.6	11130	PASS
365	198	1	100	2.8	1487	PASS
441	443	0.10	100	77.6	6594	PASS
442	198	40	100	79.1	42661	PASS
443	442	17	23	19.9	8492	PASS

Average of 3.394 to 3.405 min.: P102786.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
51.00	18668	77.00	25986	87.80	123	107.00	8385
52.00	1008	78.00	1975	90.95	354	107.95	1240
56.00	521	79.00	1614	91.90	370	110.00	16002
57.00	1408	80.00	1188	93.00	2756	110.95	2304
61.90	150	80.90	1772	96.00	127	111.90	295
63.00	732	81.90	308	98.00	1975	116.00	174
65.00	509	83.00	507	98.90	1792	116.95	5691
68.90	23706	83.90	130	101.00	991	117.85	289
74.00	2320	84.95	350	102.90	352	121.95	447
75.00	3660	85.90	529	103.95	575	123.00	744
76.05	1258	87.00	131	105.00	557	123.90	378

Average of 3.394 to 3.405 min.: P102786.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
124.95	433	142.70	123	157.95	265	175.95	329
127.00	30563	142.90	119	159.90	357	176.95	496
128.00	2341	147.00	667	160.95	653	178.90	2001
129.00	11491	147.95	1469	164.90	515	179.95	1291
129.95	900	149.00	167	165.90	372	180.90	568
133.90	306	151.10	132	166.95	2444	185.00	906
134.90	787	153.00	403	168.00	1599	186.00	7768
135.95	393	154.00	208	169.00	150	186.95	2228
136.95	401	155.00	718	172.85	274	187.90	150
140.90	1203	156.00	1028	173.95	530	188.90	327
141.95	404	156.95	276	174.95	962	191.90	381

Average of 3.394 to 3.405 min.: P102786.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
192.95	536	207.90	435	226.90	2401	256.95	321
196.00	1467	210.95	444	227.90	291	257.90	1713
197.90	53930	216.00	185	228.90	425	259.00	122
198.90	3929	216.90	3425	233.90	128	264.90	553
199.90	136	217.90	476	241.95	361	271.90	125
201.50	165	220.95	2531	242.95	355	272.90	792
203.00	341	221.90	280	244.00	5140	273.90	1999
204.00	1911	222.90	679	244.95	621	274.90	11130
205.00	2868	224.00	6671	245.90	848	275.95	1583
206.00	13678	224.95	1834	254.90	27247	276.90	804
207.00	1679	225.90	119	255.90	4037	295.90	3150

Average of 3.394 to 3.405 min.: P102786.D

dftpp

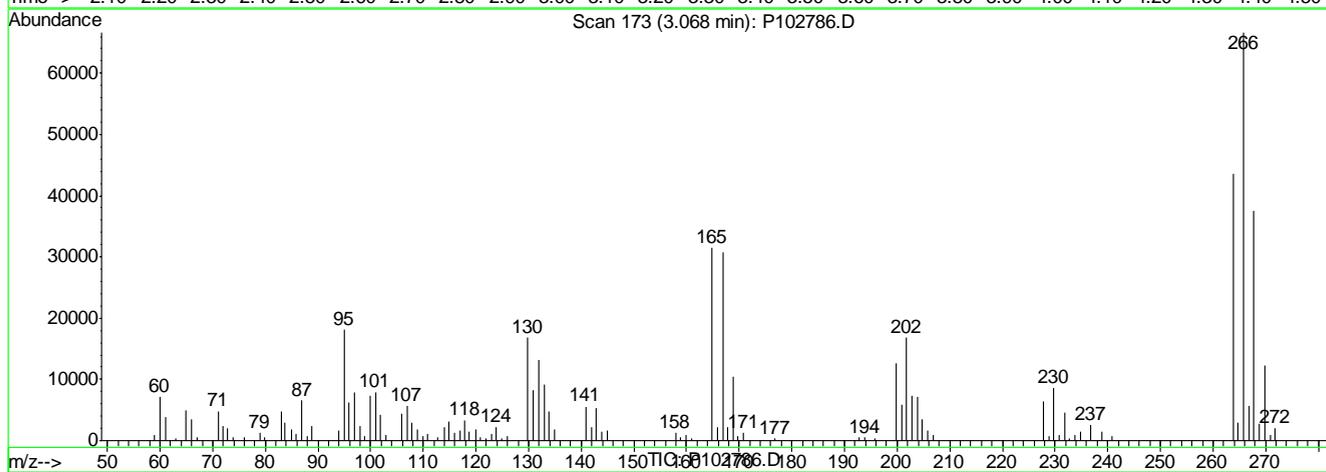
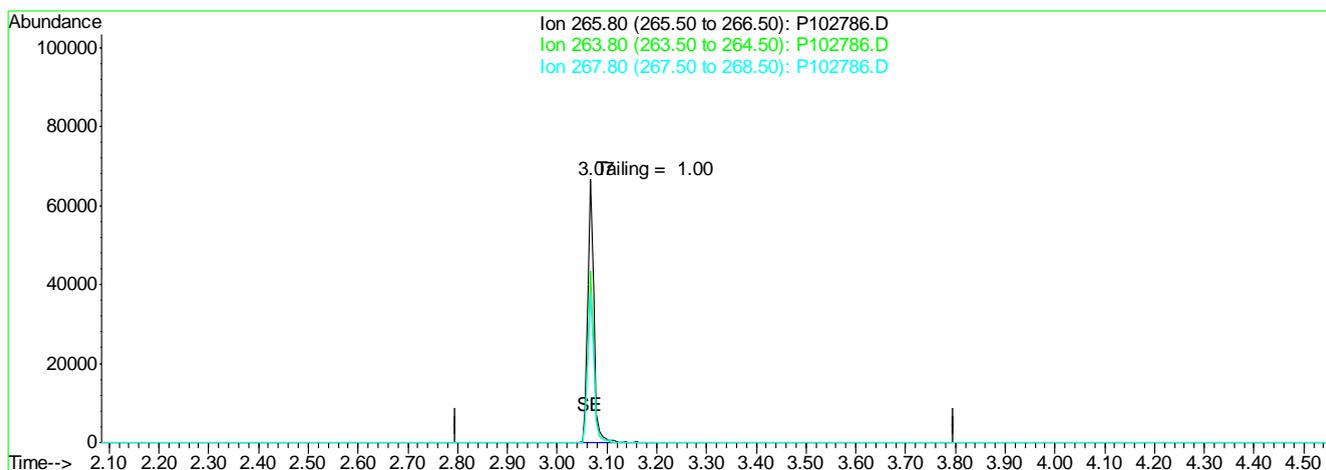
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.80	367	353.90	213	442.90	8492		
302.90	248	364.90	1487	443.90	828		
314.85	382	371.85	664				
315.90	135	401.90	176				
323.00	1207	402.90	188				
323.80	122	420.90	148				
326.90	153	422.00	160				
333.95	711	422.95	2166				
345.90	161	423.90	241				
352.00	322	440.95	6594				
353.00	153	441.90	42661				

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
 Acq On : 24 Feb 2016 1:55 am Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(1) Pentachlorophenol (t)

3.07min 208.02ppb

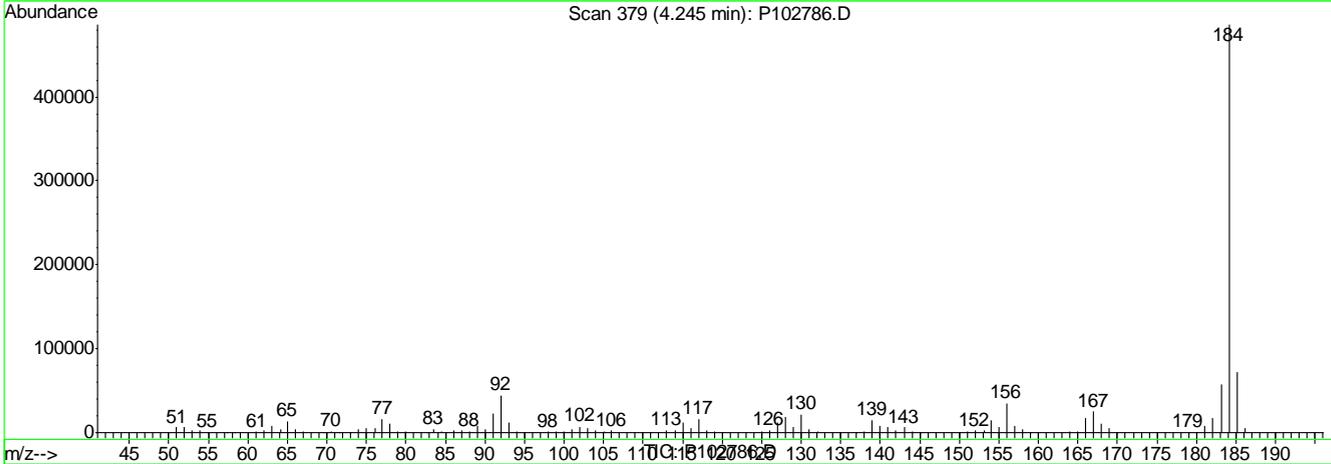
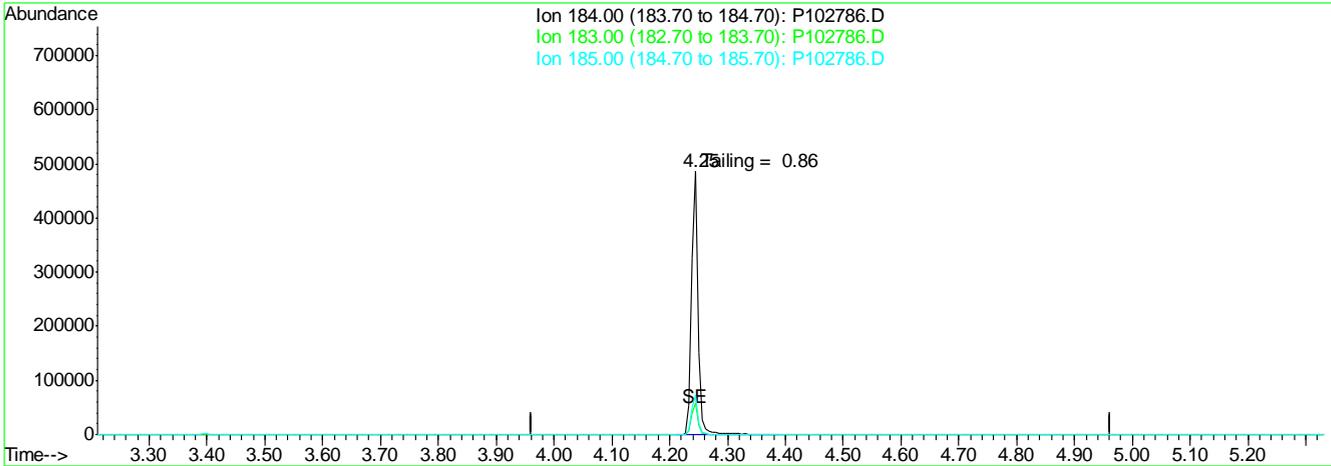
response 57519

Ion	Exp%	Act%
265.80	100	100
263.80	63.10	65.27
267.80	63.20	55.97
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
 Acq On : 24 Feb 2016 1:55 am Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(2) Benzidine (t)

4.25min 132.10ppb

response 375509

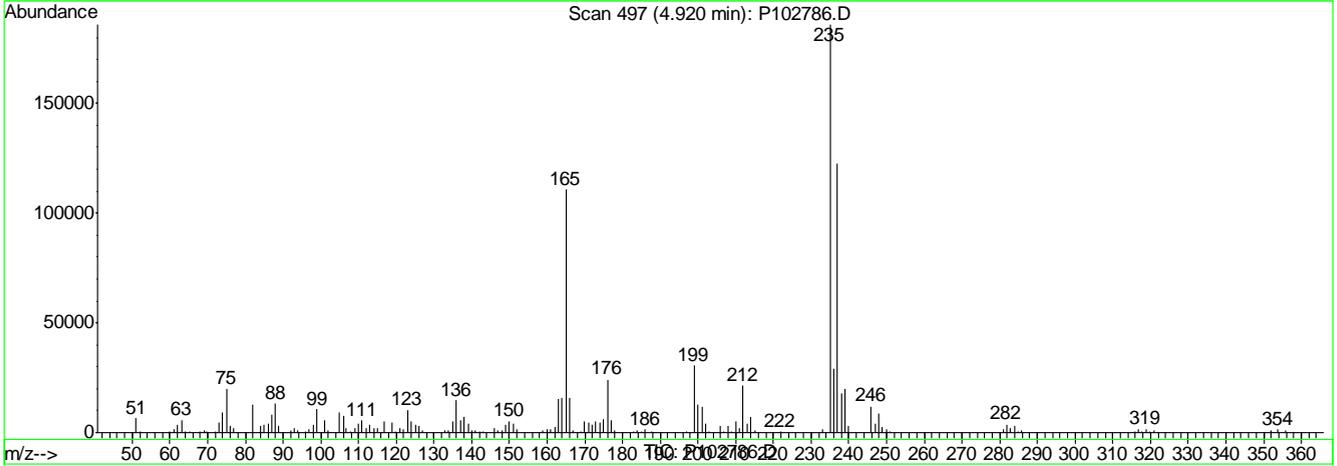
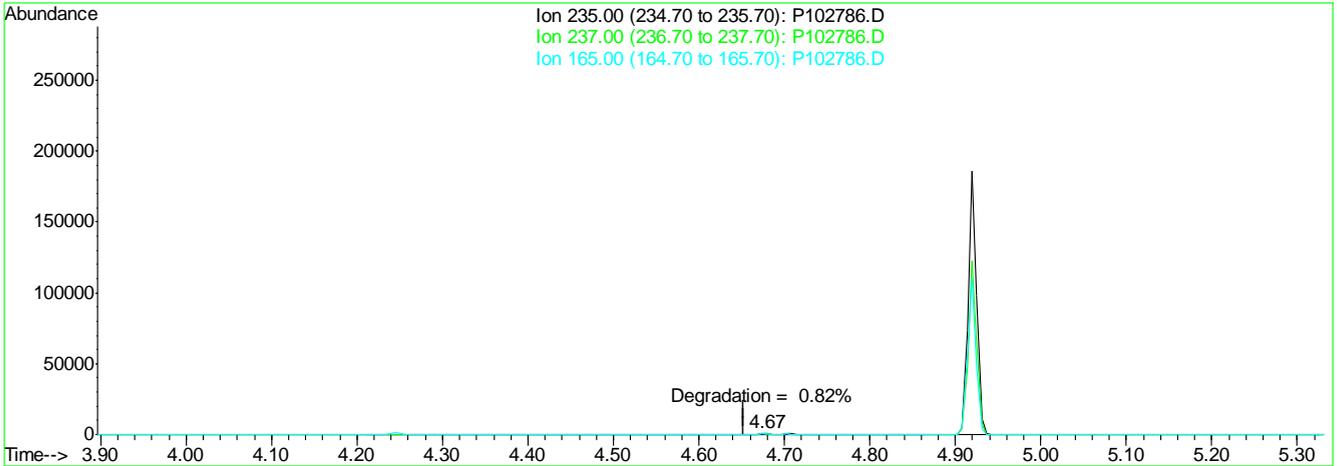
Ion	Exp%	Act%
184.00	100	100
183.00	0.00	11.47
185.00	0.00	14.61
0.00	0.00	0.00

9.5.3.2
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
 Acq On : 24 Feb 2016 1:55 am Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(3) ddt

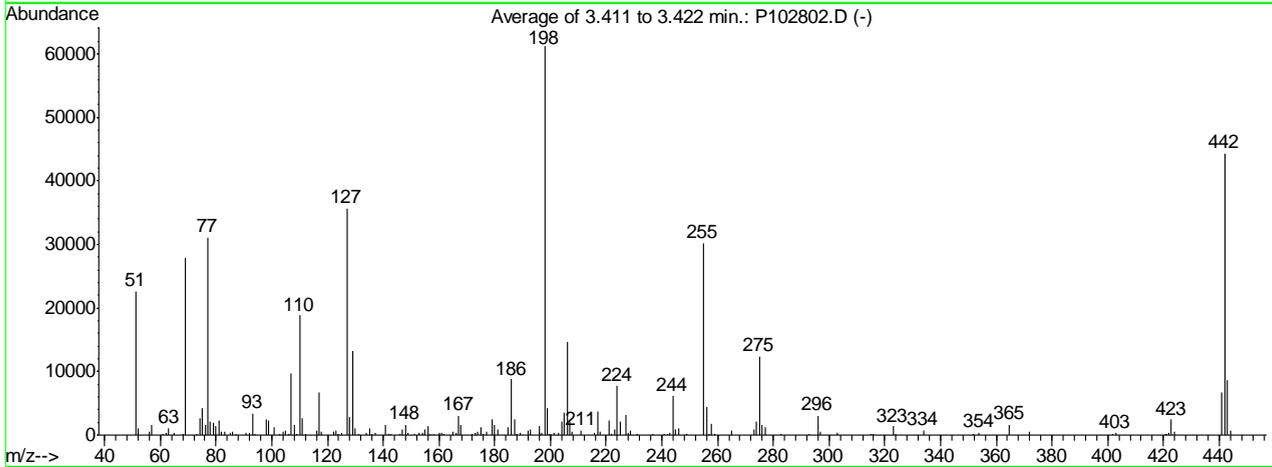
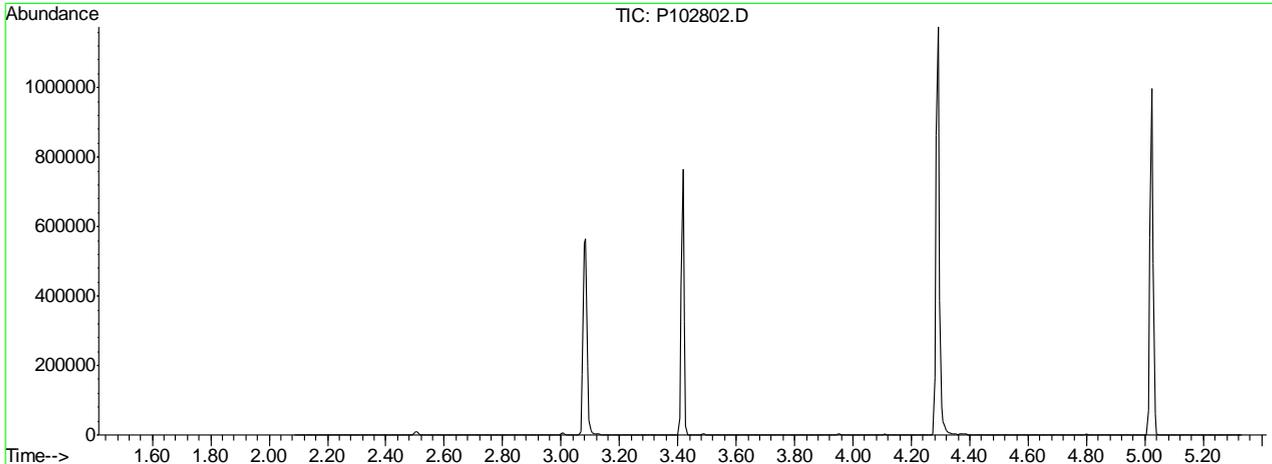
4.92min 98.65ppb

response 128279

Ion	Exp%	Act%
235.00	100	100
237.00	65.40	66.06
165.00	55.50	60.08
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4515\P102802.D Vial: 1
 Acq On : 24 Feb 2016 10:01 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 233, 234, 235; Background Corrected with Scan 229

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	37.0	22621	PASS
68	69	0.00	2	0.8	213	PASS
69	198	0.00	100	45.6	27911	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	58.4	35722	PASS
197	198	0.00	1	0.5	290	PASS
198	198	100	100	100.0	61170	PASS
199	198	5	9	7.0	4302	PASS
275	198	10	30	20.3	12439	PASS
365	198	1	100	2.7	1669	PASS
441	443	0.10	100	79.1	6795	PASS
442	198	40	100	72.4	44310	PASS
443	442	17	23	19.4	8589	PASS

Average of 3.411 to 3.422 min.: P102802.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
51.00	22621	74.00	2727	85.95	523	104.90	638
52.00	1143	75.00	4305	87.00	143	106.00	123
55.95	589	76.05	1536	90.90	356	107.00	9741
56.95	1598	77.00	31139	91.95	414	107.95	1569
61.00	146	78.00	2126	93.00	3411	108.80	151
61.95	331	79.00	2012	94.00	258	110.00	18820
63.00	1123	80.00	1505	98.00	2468	111.00	2591
64.90	347	80.95	2274	98.95	2289	112.00	235
68.00	213	81.95	593	100.95	1226	116.00	631
68.90	27911	82.95	470	102.90	169	117.00	6768
73.00	129	85.00	420	103.90	619	117.95	569

Average of 3.411 to 3.422 min.: P102802.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
122.00	458	135.90	170	152.90	371	167.00	3062
122.95	789	137.00	429	153.95	390	167.95	1672
124.00	232	140.90	1593	155.00	884	171.90	124
125.00	343	141.80	157	156.00	1421	172.95	340
127.00	35722	142.00	268	156.90	119	173.95	581
128.00	2825	142.90	145	158.00	173	174.95	1314
129.00	13155	146.00	143	159.95	353	176.00	229
130.00	1120	146.90	908	160.85	415	176.90	585
130.90	142	147.95	1645	161.90	171	178.90	2400
133.90	374	148.95	386	164.95	456	179.95	1672
135.00	999	151.10	119	166.05	298	180.95	841

Average of 3.411 to 3.422 min.: P102802.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.90	1321	198.90	4302	215.95	301	231.00	194
186.00	8743	199.80	137	216.90	3728	236.80	124
187.00	2398	200.00	196	217.95	497	240.90	132
187.90	155	201.45	313	221.00	2386	241.90	236
188.95	408	202.90	307	221.70	211	242.90	296
191.90	730	203.95	2207	222.90	805	244.00	6106
192.90	839	204.95	3532	224.00	7745	245.00	854
195.90	1423	206.00	14693	225.00	2037	245.85	1023
196.10	353	207.00	2068	226.90	3178	248.90	123
196.70	290	207.90	609	227.95	364	254.90	30264
197.90	61170	210.95	721	228.85	686	255.95	4344

Average of 3.411 to 3.422 min.: P102802.D

dftpp

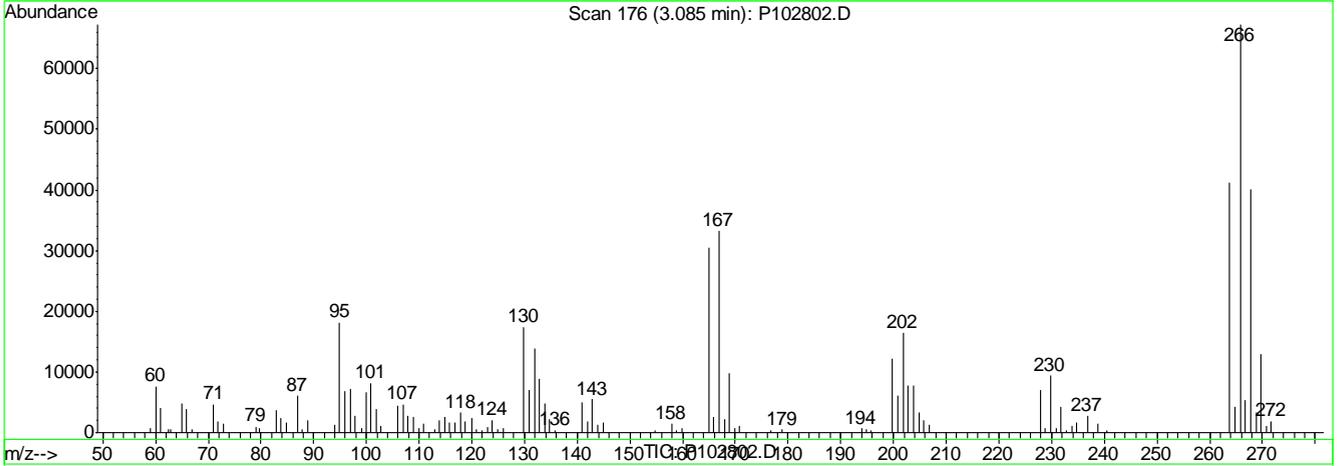
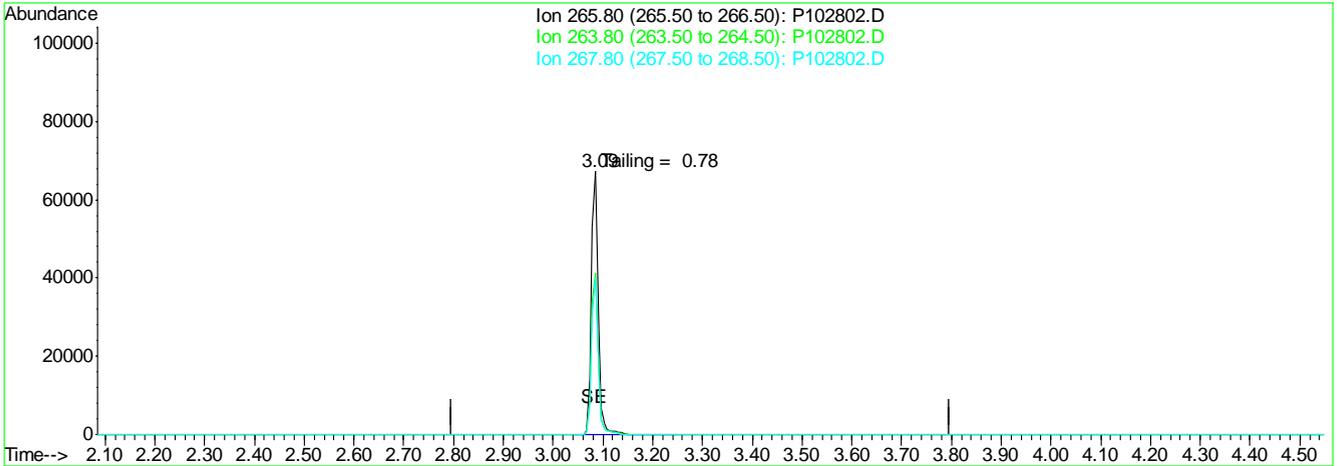
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
257.10	175	295.95	3041	371.90	528	443.95	774
257.90	1814	296.95	517	401.90	165		
258.90	174	303.00	348	402.90	319		
264.95	659	314.80	227	420.70	169		
272.90	905	315.90	142	420.90	180		
273.95	2134	322.95	1332	421.90	294		
274.90	12439	324.00	156	422.90	2448		
275.95	1554	333.95	725	423.95	473		
276.90	1234	351.80	223	440.95	6795		
282.80	127	353.90	354	441.90	44310		
292.90	189	364.80	1669	442.90	8589		

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102802.D Vial: 1
 Acq On : 24 Feb 2016 10:01 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Feb 24 10:06 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(1) Pentachlorophenol (t)

3.09min 221.42ppb

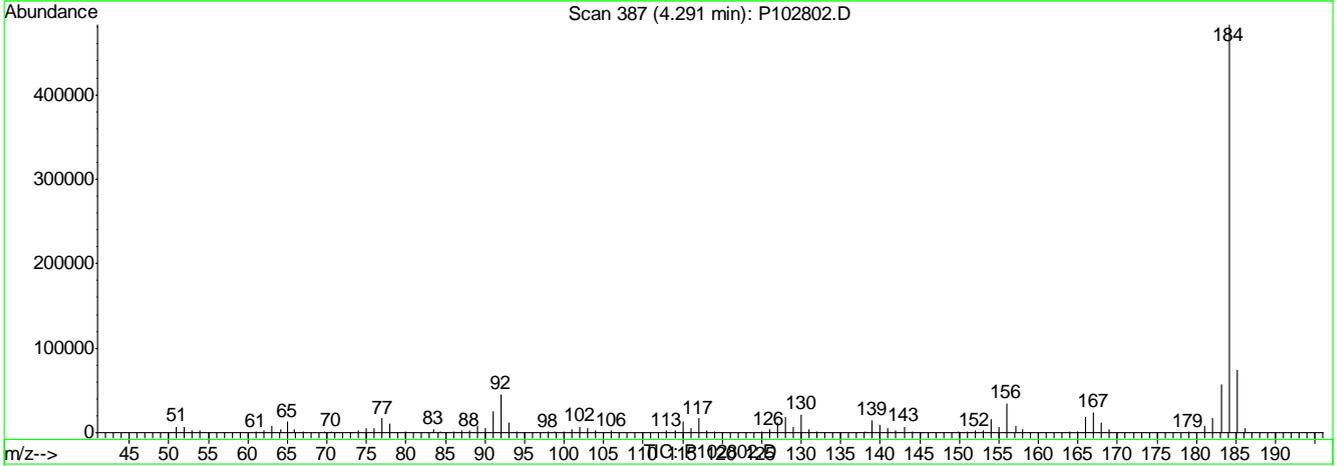
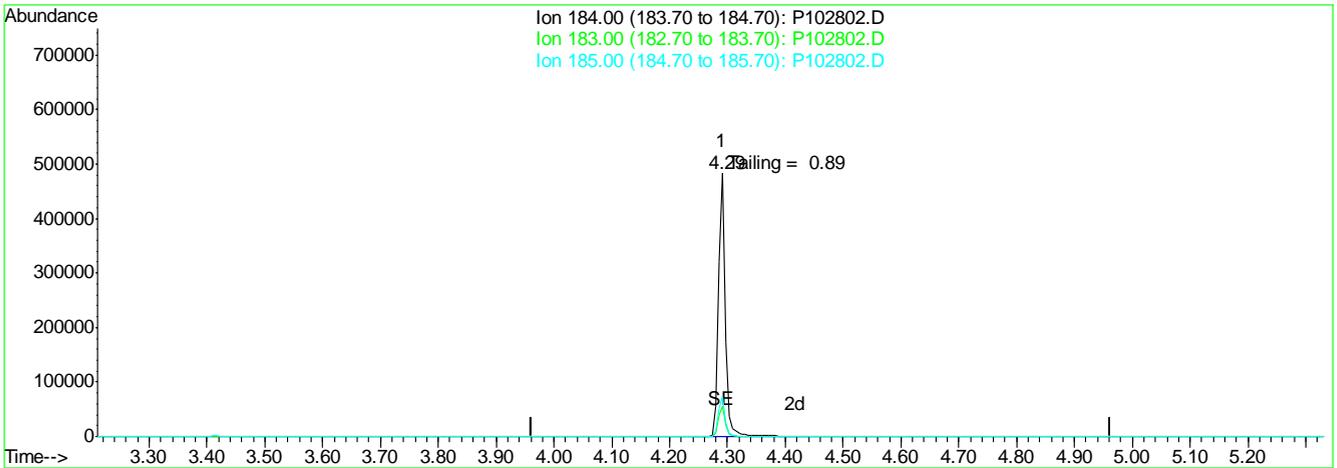
response 61224

Ion	Exp%	Act%
265.80	100	100
263.80	63.10	61.39
267.80	63.20	59.69
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102802.D Vial: 1
 Acq On : 24 Feb 2016 10:01 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Feb 24 10:06 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(2) Benzidine (t)

4.29min 136.73ppb

response 388658

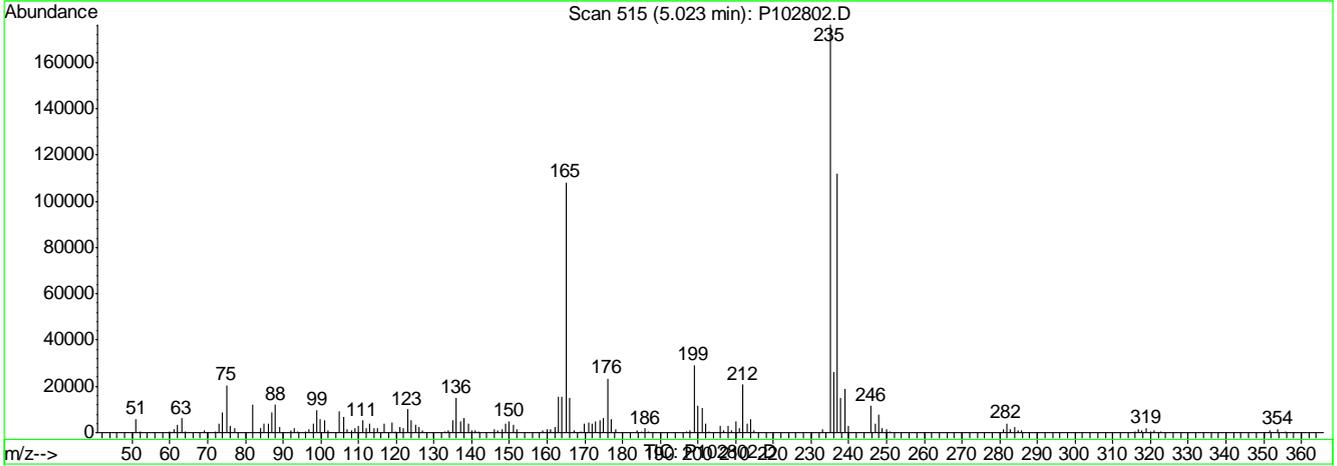
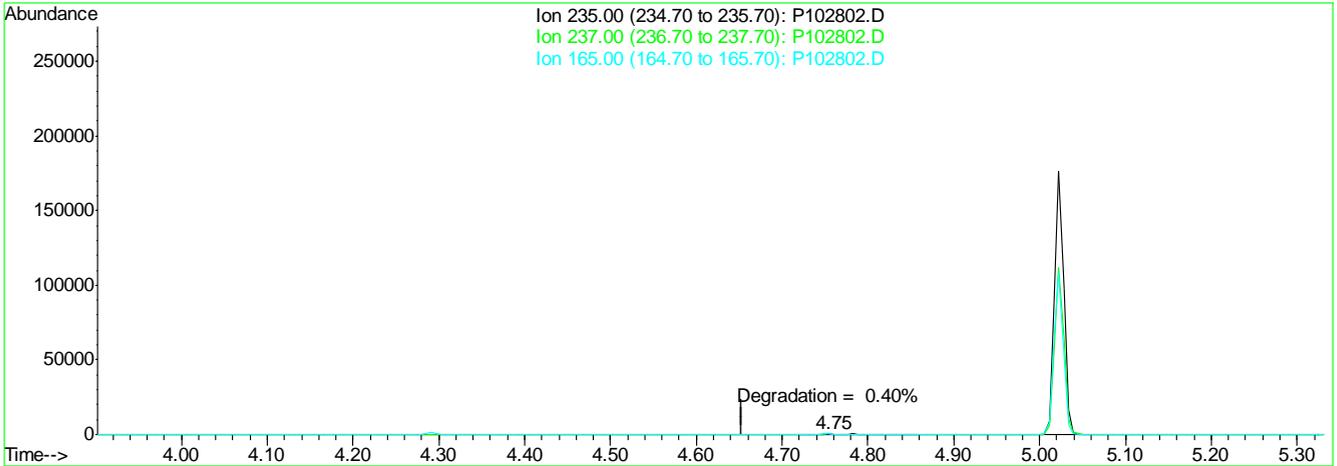
Ion	Exp%	Act%
184.00	100	100
183.00	0.00	11.66
185.00	0.00	15.47
0.00	0.00	0.00

9.5.4.2
 9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102802.D Vial: 1
 Acq On : 24 Feb 2016 10:01 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Feb 24 10:06 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(3) ddt

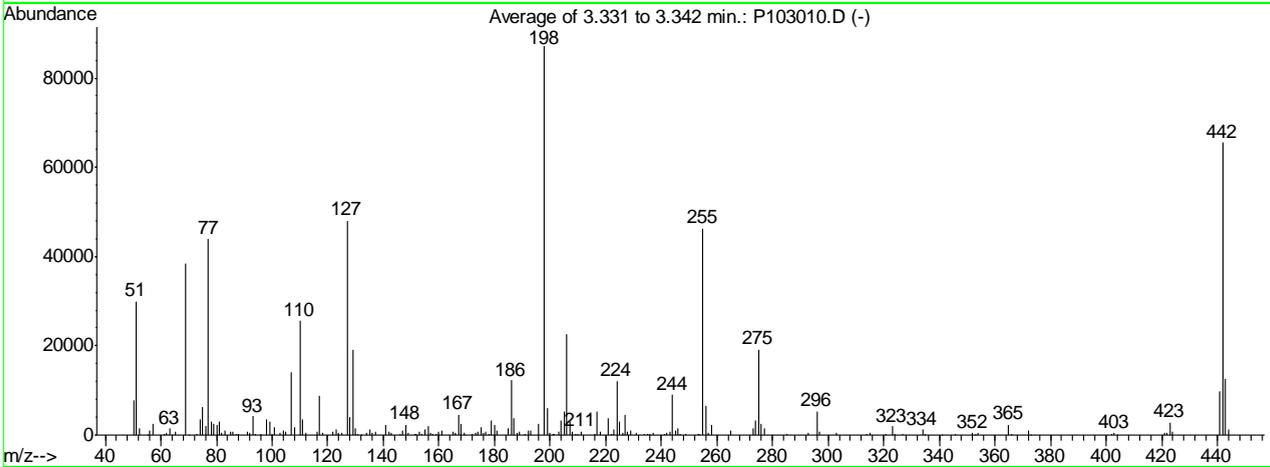
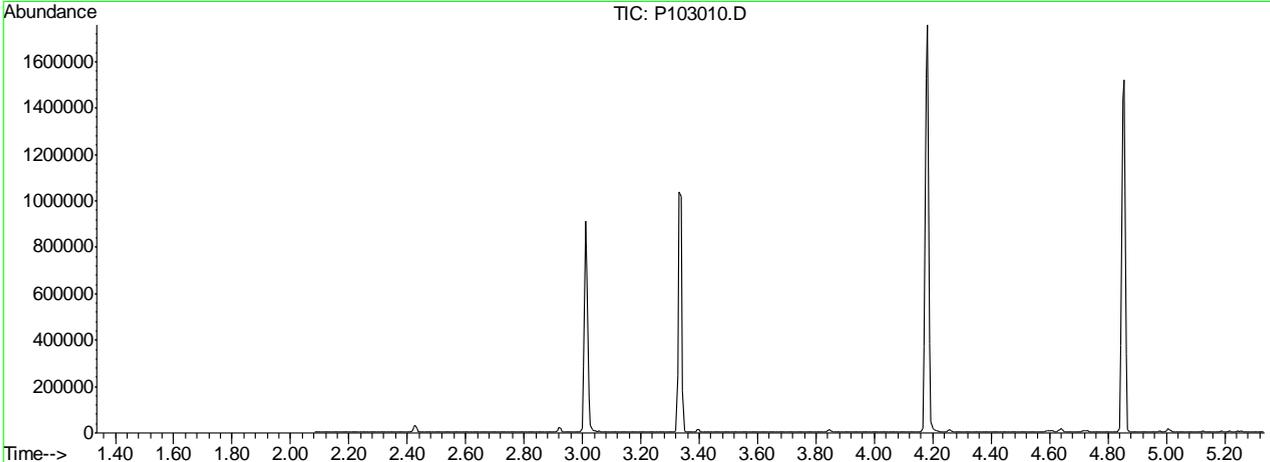
5.02min 102.92ppb

response 133827

Ion	Exp%	Act%
235.00	100	100
237.00	65.40	63.96
165.00	55.50	61.54
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
 Acq On : 2 Mar 2016 4:56 pm Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 219, 220, 221; Background Corrected with Scan 214

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	34.4	29961	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.2	38523	PASS
70	69	0.00	2	0.3	119	PASS
127	198	40	60	55.2	48031	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	87088	PASS
199	198	5	9	6.9	5993	PASS
275	198	10	30	21.9	19109	PASS
365	198	1	100	2.7	2328	PASS
441	443	0.10	100	79.2	9869	PASS
442	198	40	100	75.2	65456	PASS
443	442	17	23	19.0	12454	PASS

P103010.D DFTPPP.M Thu Mar 03 08:55:28 2016

9.5.5
 9

Average of 3.331 to 3.342 min.: P103010.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	7918	69.00	38523	81.95	617	98.00	3529
51.05	29961	69.90	119	83.05	909	99.00	3032
52.10	1568	72.95	325	85.00	779	100.05	324
55.10	127	74.05	3401	85.90	815	101.00	1657
56.00	892	75.00	6289	86.95	355	103.00	508
57.00	2405	76.10	2020	87.95	273	104.00	895
61.05	310	77.10	43879	91.00	685	105.00	849
62.00	456	78.10	3069	92.00	603	107.00	13956
63.05	1416	79.00	2571	93.05	4266	108.00	1737
64.10	118	80.00	2196	94.00	348	110.00	25592
65.05	756	81.00	3087	96.00	138	111.00	3642

Average of 3.331 to 3.342 min.: P103010.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
112.05	454	130.00	1463	147.00	1042	158.95	278
116.05	636	130.90	139	148.00	2369	160.00	700
117.00	8823	132.10	117	148.90	462	161.00	1024
118.05	627	133.95	525	151.20	143	165.00	714
122.00	747	135.00	1252	151.80	156	166.00	615
123.00	1240	136.00	598	152.95	661	167.00	4618
124.00	545	137.05	797	153.90	358	168.00	2478
125.00	611	141.00	2341	155.00	1349	169.00	395
127.00	48031	142.05	647	156.00	1990	171.90	385
128.00	3925	143.00	527	157.05	465	173.00	482
129.00	19067	146.00	259	157.90	357	174.00	866

Average of 3.331 to 3.342 min.: P103010.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	1760	189.00	759	204.00	3341	221.00	3814
175.95	453	190.95	343	205.00	5296	222.00	340
177.00	741	192.00	902	206.00	22535	222.90	1343
177.95	327	193.00	1098	207.00	3106	224.00	12115
179.00	3264	196.00	2527	207.95	672	225.00	3045
180.00	2227	198.00	87088	209.00	158	226.05	412
181.00	920	198.95	5993	210.00	192	226.95	4563
185.00	1582	199.90	427	211.00	835	227.95	656
186.00	12226	200.90	140	216.00	188	228.90	1024
187.00	3749	201.55	345	217.00	5332	230.95	445
188.00	408	203.00	695	217.95	791	234.00	200

Average of 3.331 to 3.342 min.: P103010.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
234.90	221	253.10	230	276.95	1590	326.95	281
235.95	278	253.80	143	285.00	328	334.00	1172
237.00	449	255.00	46267	293.00	409	334.90	175
240.95	294	256.00	6608	295.95	5356	340.90	123
242.00	605	256.85	522	296.90	724	345.90	375
243.00	751	257.90	2386	302.95	595	351.95	489
244.00	8992	265.00	902	314.00	173	353.00	341
245.00	1094	273.00	1566	314.95	552	353.95	426
246.00	1451	273.95	3350	320.80	136	364.90	2328
246.95	335	275.00	19109	323.00	1903	365.95	354
248.90	172	276.00	2456	324.05	306	371.95	941

Average of 3.331 to 3.342 min.: P103010.D

dftpp

Modified:subtracted

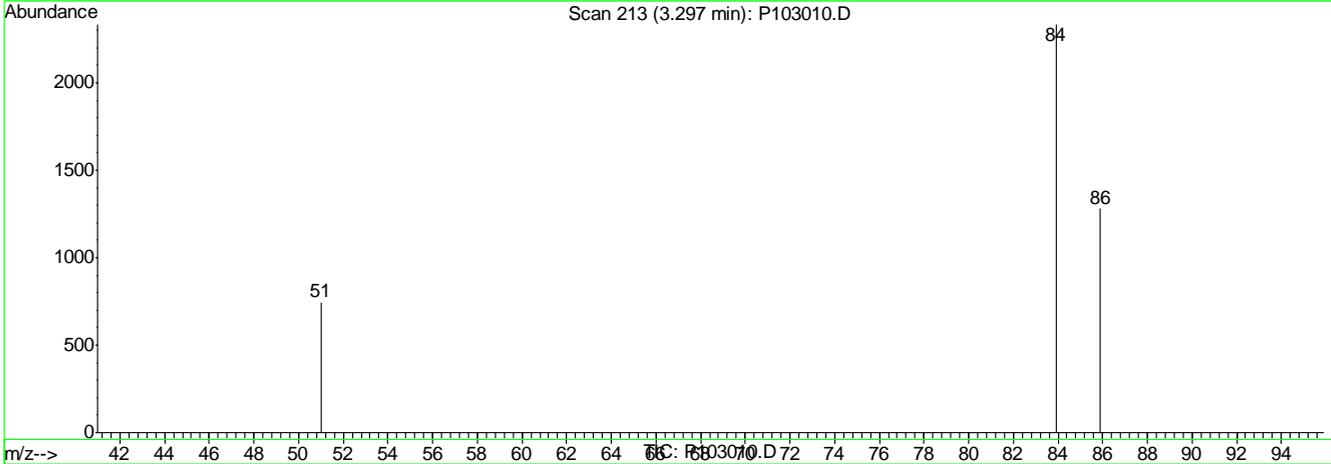
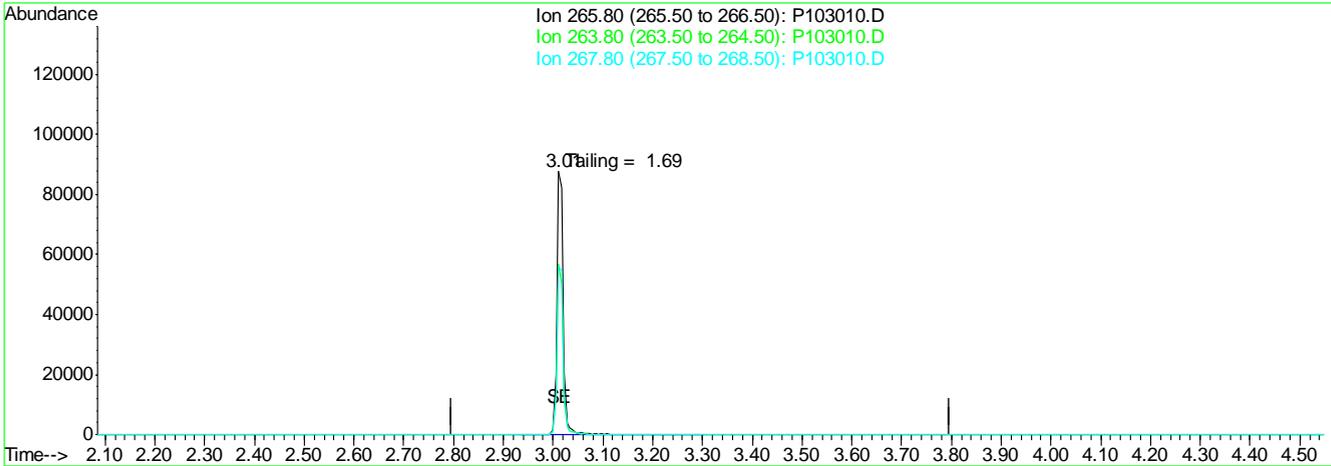
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.00	123	443.90	1215				
401.95	295						
402.95	437						
404.00	120						

420.95	490
421.95	391
422.95	2864
423.90	772
441.00	9869
442.00	65456
443.00	12454

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
 Acq On : 2 Mar 2016 4:56 pm Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(1) Pentachlorophenol (t)

3.30min 0.00ppb

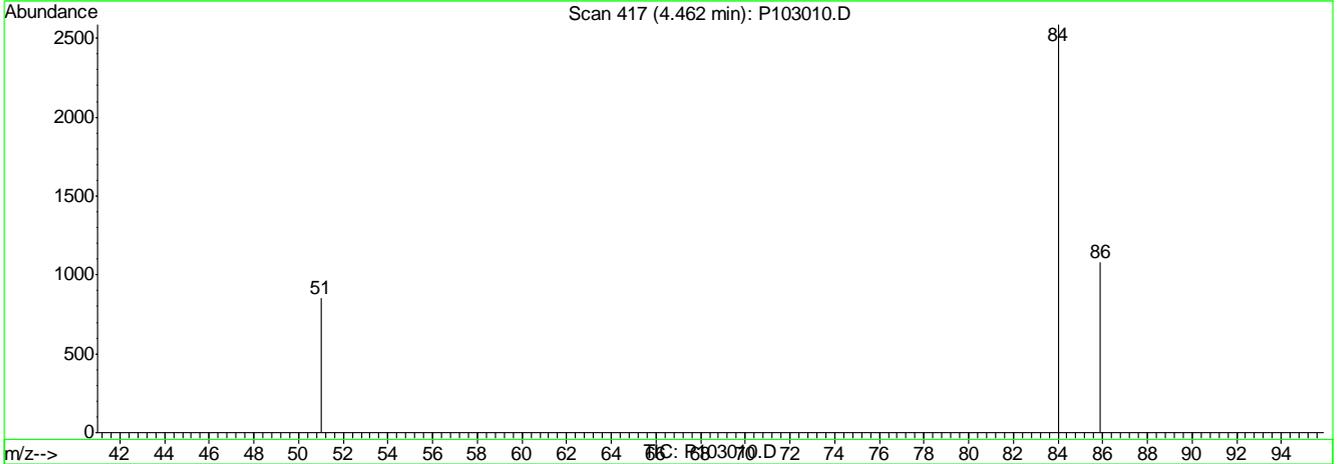
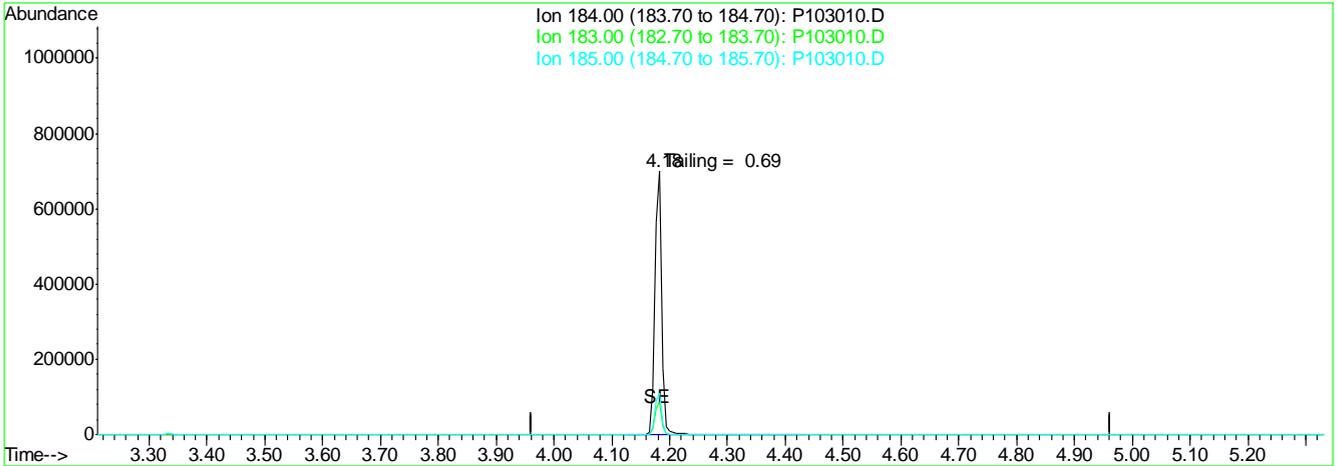
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.10	0.00#
267.80	63.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
 Acq On : 2 Mar 2016 4:56 pm Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(2) Benzidine (t)

4.46min 0.00ppb

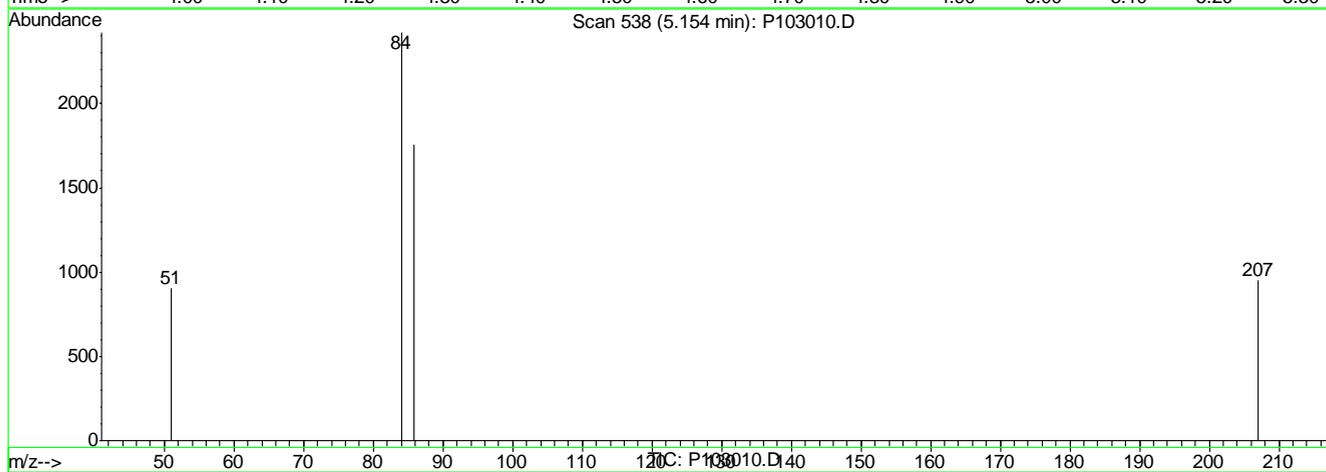
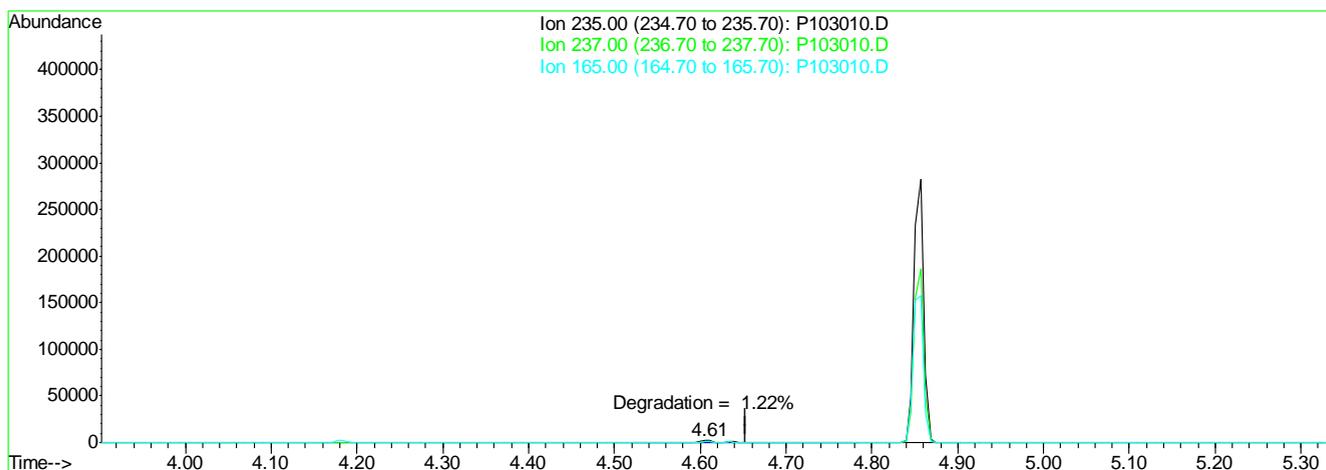
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
 Acq On : 2 Mar 2016 4:56 pm Operator: sarad
 Sample : dftpp Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(3) ddt

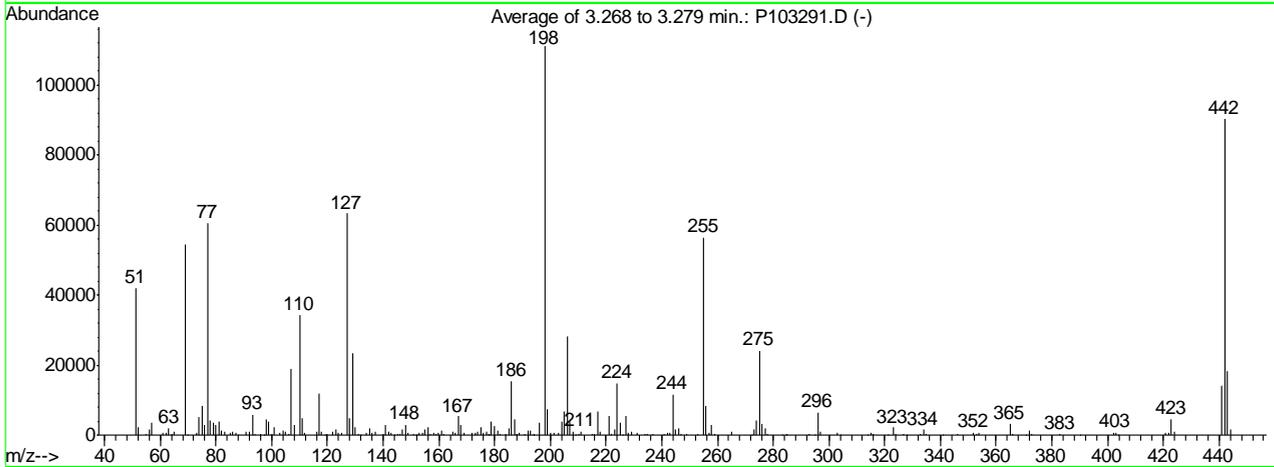
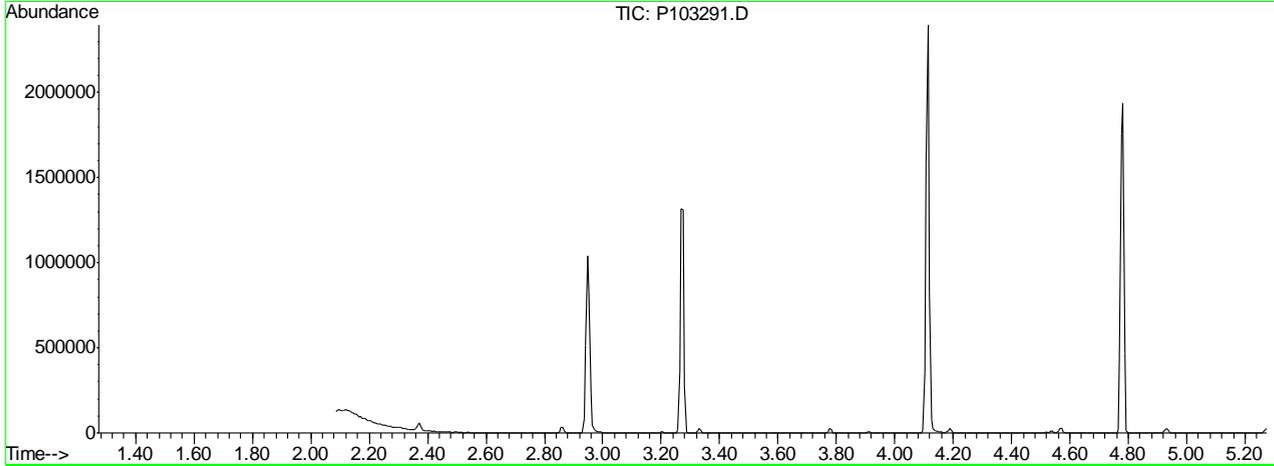
5.15min 0.00ppb

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	65.40	0.00#
165.00	55.50	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4538\P103291.D Vial: 1
 Acq On : 14 Mar 2016 8:33 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 208, 209, 210; Background Corrected with Scan 203

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	37.9	42091	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.2	54610	PASS
70	69	0.00	2	0.3	164	PASS
127	198	40	60	57.1	63407	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	111074	PASS
199	198	5	9	6.6	7347	PASS
275	198	10	30	21.6	24034	PASS
365	198	1	100	2.8	3093	PASS
441	443	0.10	100	75.8	13956	PASS
442	198	40	100	81.3	90253	PASS
443	442	17	23	20.4	18404	PASS

P103291.D DFTPPP.M Mon Mar 14 14:37:56 2016

9.5.6
 9

Average of 3.268 to 3.279 min.: P103291.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
51.05	42091	70.00	164	83.00	915	98.00	4462
52.05	2241	73.15	529	85.00	672	99.00	3742
55.00	403	74.00	5032	86.00	1021	100.00	329
56.00	1567	75.00	8480	86.95	576	101.00	2167
57.00	3434	76.05	2949	88.00	123	102.90	620
60.95	600	77.00	60718	90.95	874	104.00	1257
62.00	612	78.05	4061	92.00	938	105.00	1116
63.00	2035	79.00	3454	93.00	5863	106.10	179
64.00	296	80.00	2770	94.05	407	107.00	18827
65.00	991	81.00	3892	96.00	342	108.00	2914
69.00	54610	82.00	1221	97.10	162	110.00	34405

Average of 3.268 to 3.279 min.: P103291.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.00	4847	127.00	63407	140.95	2809	151.90	129
111.95	562	128.00	4685	142.00	976	152.95	728
116.00	830	129.00	23495	142.95	677	153.95	545
117.00	11981	130.00	2129	144.00	155	155.00	1549
118.00	864	130.95	343	145.20	174	156.00	2228
118.90	122	132.00	146	146.00	458	157.10	462
119.90	173	133.90	661	147.00	1704	157.95	513
122.00	1117	134.95	1833	148.00	3036	158.95	348
123.00	1617	135.95	615	148.95	718	159.95	762
124.00	635	137.00	893	151.00	385	161.00	1156
124.95	739	139.95	301	151.60	136	161.95	453

Average of 3.268 to 3.279 min.: P103291.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
164.95	924	177.90	210	188.10	178	201.45	563
165.95	758	178.10	116	188.90	773	202.95	752
167.00	5361	178.90	3710	190.90	469	203.95	3852
168.00	3019	180.00	2532	191.95	1194	205.00	6821
169.00	497	181.00	1271	192.95	1278	206.00	28092
171.95	563	182.00	177	193.90	166	207.00	4008
173.00	535	183.90	364	194.10	173	208.00	818
173.95	1019	185.00	2078	195.95	3666	209.00	128
175.00	2289	186.00	15470	197.90	111074	210.10	249
176.00	628	187.00	4400	198.95	7347	210.95	1016
176.95	823	187.80	194	199.95	564	215.00	200

Average of 3.268 to 3.279 min.: P103291.D

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
215.85	465	228.95	922	247.00	359	274.00	4252
216.95	6874	231.00	497	249.00	339	275.00	24034
217.95	910	233.95	337	252.90	279	275.95	3185
220.95	5325	234.90	340	255.00	56474	277.00	1832
222.00	347	236.90	403	255.95	8376	277.90	172
222.95	1744	240.95	326	257.00	573	283.10	154
224.00	14798	241.90	558	257.95	3015	284.80	128
225.00	3629	243.05	698	258.90	397	285.00	182
226.00	148	244.00	11688	264.90	1124	292.85	449
227.00	5470	245.00	1551	272.10	141	294.90	117
228.00	725	245.90	2021	272.95	1757	295.95	6420

Average of 3.268 to 3.279 min.: P103291.D

dftpp

Modified:subtracted

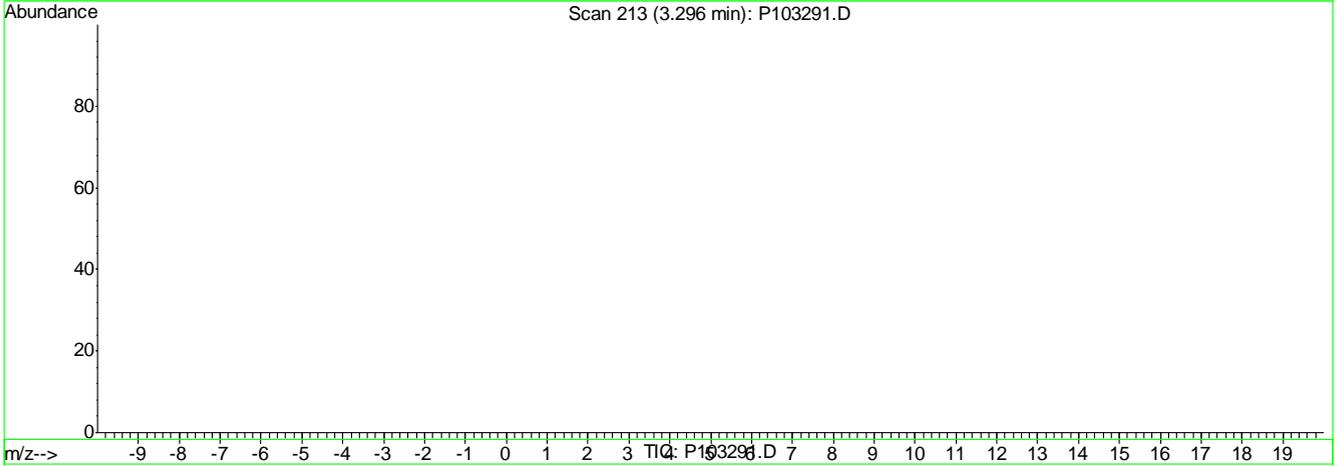
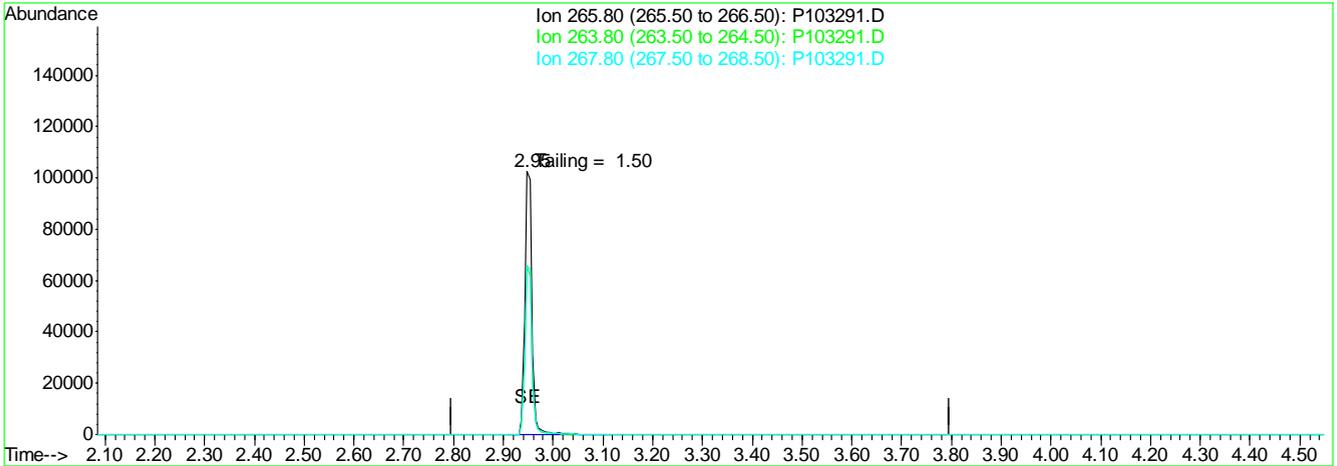
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.95	1018	332.90	177	371.95	1437	440.95	13956
302.95	760	333.90	1501	372.90	174	441.95	90253
304.00	126	334.90	363	382.90	281	443.00	18404
314.00	149	341.00	149	390.00	161	444.00	1547

314.90	510	345.95	372	402.00	582
315.95	450	351.90	798	402.95	811
321.00	127	352.95	453	403.90	155
322.95	2128	353.95	684	420.90	735
323.90	399	364.90	3093	421.95	551
326.90	283	365.90	409	422.90	4572
327.90	119	370.90	118	423.90	850

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103291.D Vial: 1
 Acq On : 14 Mar 2016 8:33 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 8:38 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(1) Pentachlorophenol (t)

3.30min 0.00ppb

response 0

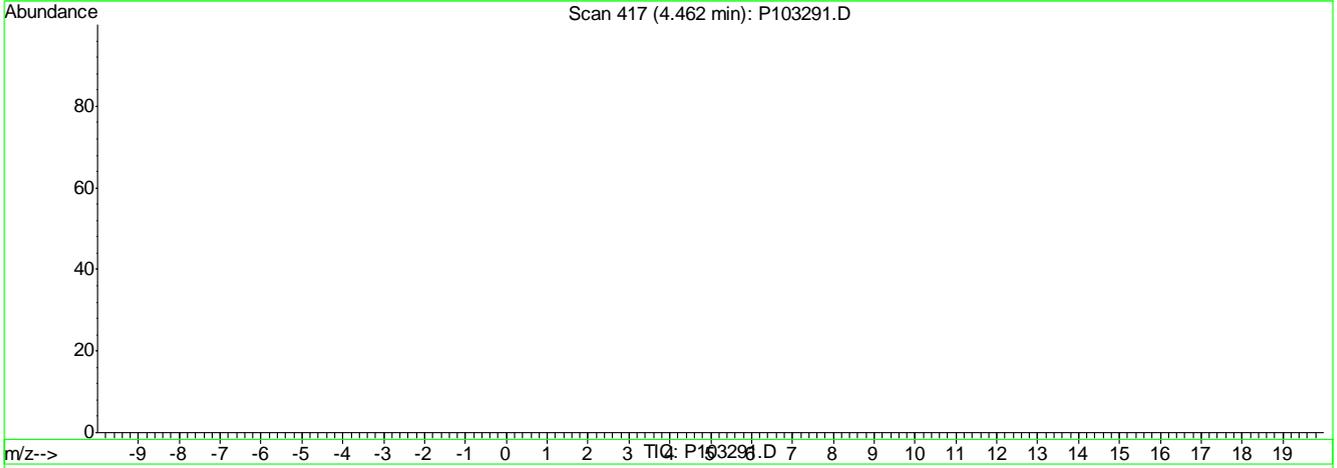
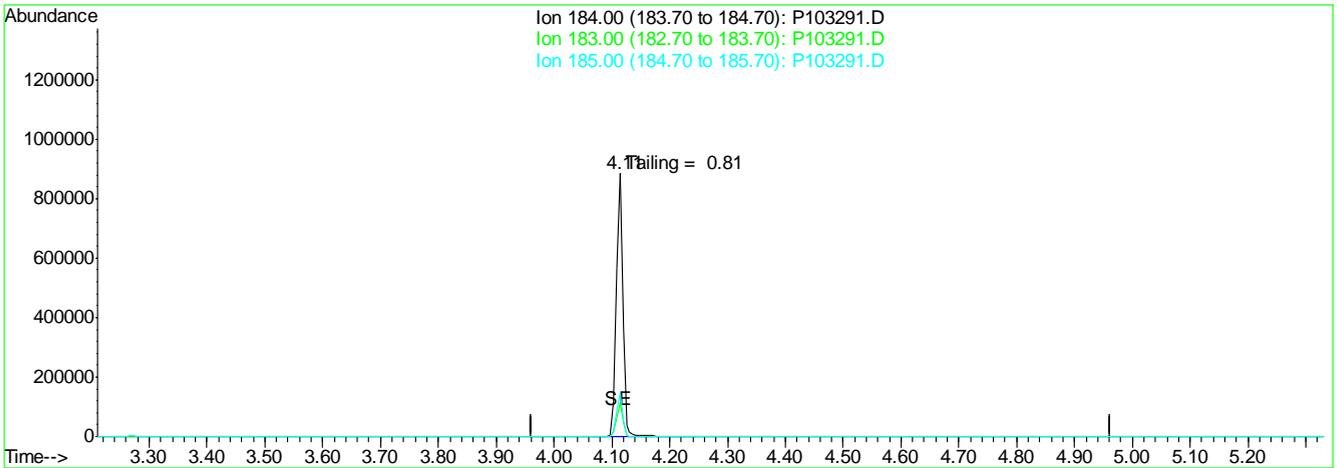
Ion	Exp%	Act%
265.80	100	0.00
263.80	63.10	0.00#
267.80	63.20	0.00#
0.00	0.00	0.00

9.5.6.1
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103291.D Vial: 1
 Acq On : 14 Mar 2016 8:33 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 8:38 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(2) Benzidine (t)

4.46min 0.00ppb

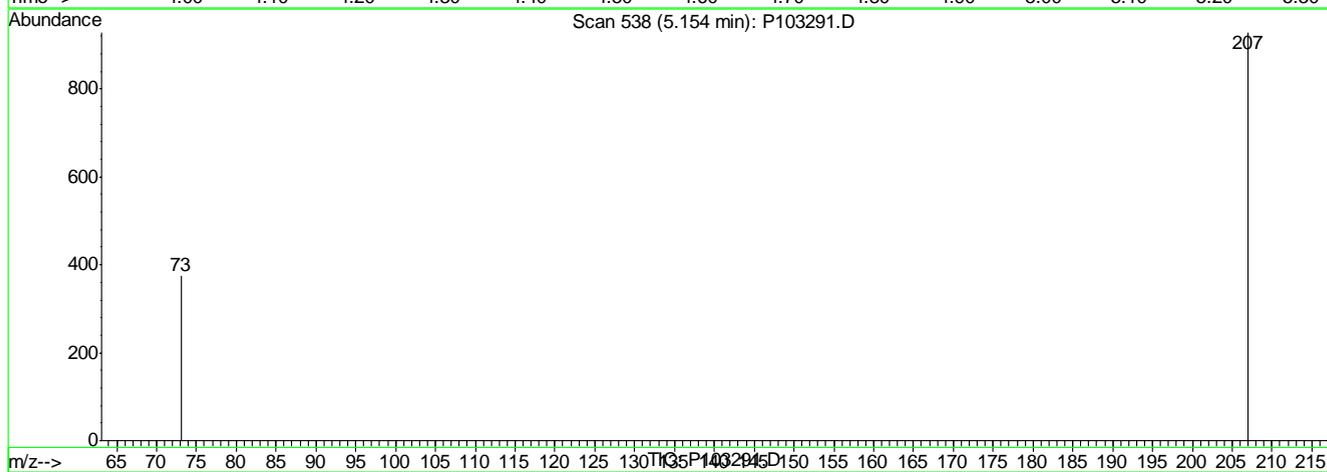
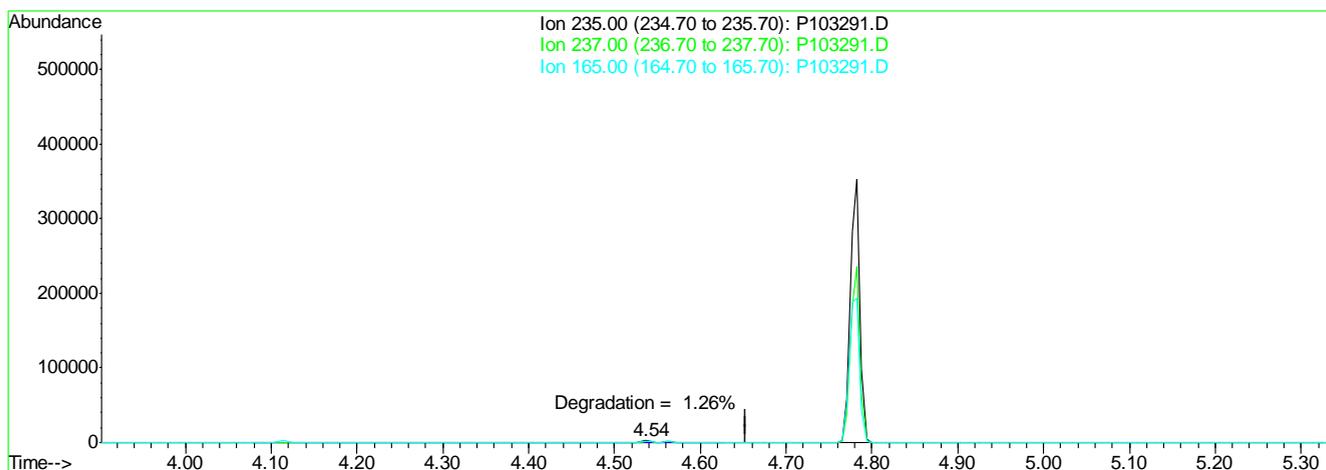
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103291.D Vial: 1
 Acq On : 14 Mar 2016 8:33 am Operator: linseyk
 Sample : dftpp Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Mar 14 8:38 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 Last Update : Wed Jan 06 10:49:26 2016
 Response via : Single Level Calibration



(3) ddt

5.15min 0.00ppb

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	65.40	0.00#
165.00	55.50	0.00#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63805.D
 Acq On : 29 Feb 2016 4:57 pm
 Operator : linseyk
 Sample : icc2828-1
 Misc : op91493a,e4m2828
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 08:09:02 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	781339	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1367003	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	2020779	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1596024	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	781339	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1367003	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.169	112	2989296	20.02	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	40.04%
3) Phenol-d5	5.567	99	4834654	20.00	ppm	0.00
Spiked Amount	50.000			Recovery	=	40.00%
6) Nitrobenzene-d5	7.046	82	3823922	20.00	ppm	0.00
Spiked Amount	50.000			Recovery	=	40.00%
11) 2-Fluorobiphenyl	10.519	172	6780221	20.00	ppm	0.00
Spiked Amount	50.000			Recovery	=	40.00%
17) 2,4,6-Tribromophenol	13.395	330	1125599	20.00	ppm	0.00
Spiked Amount	50.000			Recovery	=	40.00%
25) Terphenyl-d14	17.806	244	6878007	20.00	ppm	0.00
Spiked Amount	50.000			Recovery	=	40.00%
Target Compounds						
4) Phenol	5.580	94	1278878	5.00	ppm	100
5) bis(2-Chloroethyl)ether	5.691	93	184962	1.01	ppm	100
7) Naphthalene	8.407	128	607107	1.00	ppm	100
8) Hexachlorobutadiene	8.701	225	93560	1.00	ppm	100
9) 2-Methylnaphthalene	9.756	142	230718	1.00	ppm	100
10) Hexachlorocyclopentadiene	10.090	237	103337	2.00	ppm	100
13) Acenaphthylene	11.498	152	412953	1.00	ppm	100
14) Acenaphthene	11.846	153	229976	1.00	ppm	100
15) Dibenzofuran	12.209	168	608379	1.00	ppm	100
16) Fluorene	12.894	166	411070	1.00	ppm	100
18) Hexachlorobenzene	13.995	284	136734	1.00	ppm	100
19) Pentachlorophenol	14.428	266	300222	5.01	ppm	100
20) Phenanthrene	14.799	178	620661	1.00	ppm	100
21) Anthracene	14.892	178	578792	1.00	ppm	100
23) Fluoranthene	17.034	202	658156	1.00	ppm	100
24) Pyrene	17.430	202	662002	1.00	ppm	100
26) Benzo[a]anthracene	19.501	228	522659	1.00	ppm	100
27) Chrysene	19.557	228	555438	1.00	ppm	100
29) Benzo[b]fluoranthene	21.160	252	613031	1.00	ppm	100
30) Benzo[k]fluoranthene	21.201	252	511751	1.00	ppm	100
31) Benzo[a]pyrene	21.614	252	529210	1.00	ppm	100
32) Indeno[1,2,3-cd]pyrene	23.170	276	566290	1.00	ppm	100
33) Dibenz[a,h]anthracene	23.198	278	474751	1.00	ppm	100
34) Benzo[g,h,i]perylene	23.569	276	496131	1.00	ppm	100
36) 1,4-Dioxane	2.357	88	57005	0.92	ppm	100
37) 1-Methylnaphthalene	9.923	142	247700	1.00	ppm	100
39) 4,6-dinitro-2-methylph...	13.061	198	220394	5.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63805.D
Acq On : 29 Feb 2016 4:57 pm
Operator : linseyk
Sample : icc2828-1
Misc : op91493a,e4m2828
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 08:09:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

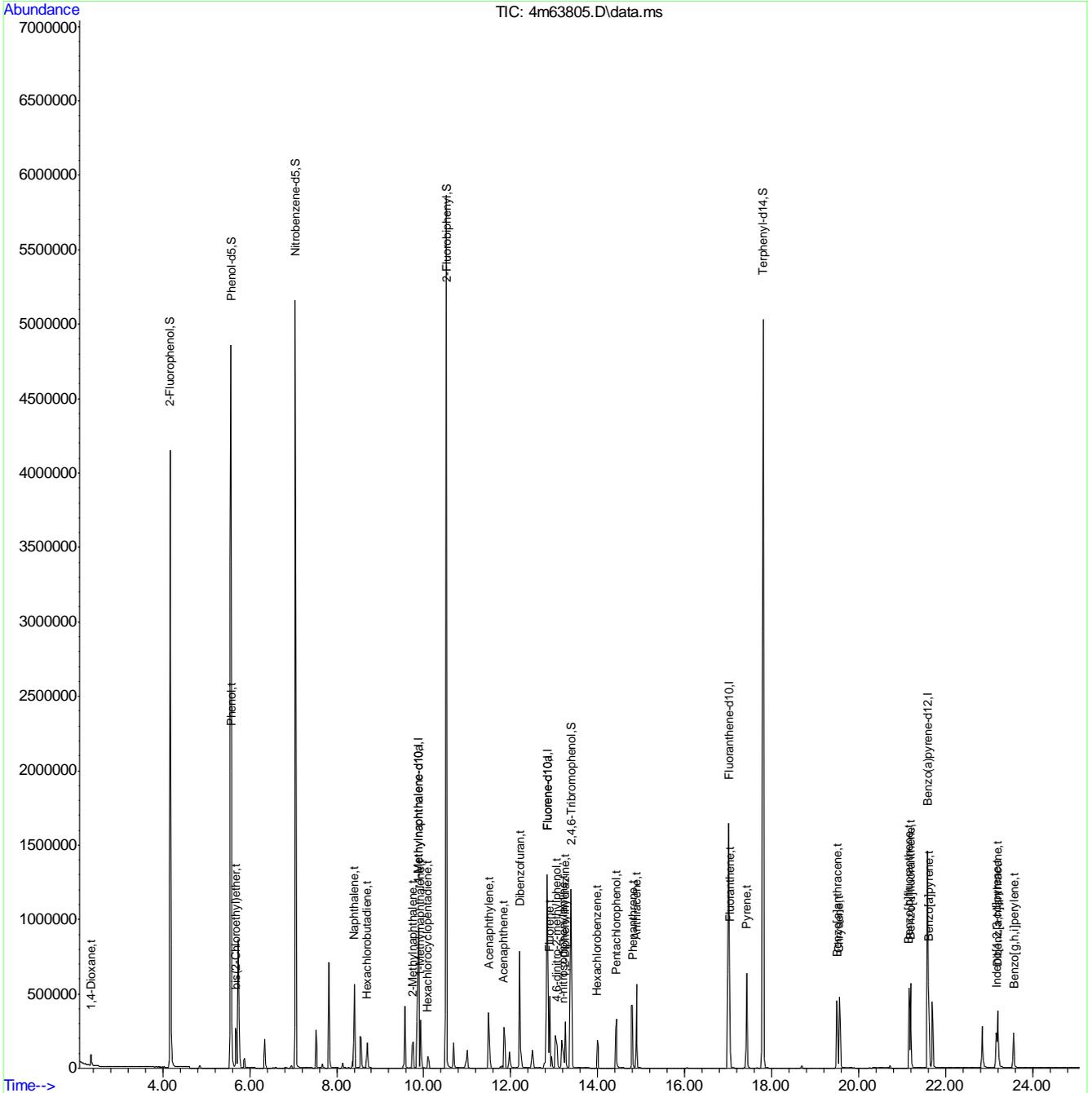
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	369119	1.00	ppm	100
41) n-nitrosodiphenylamine	13.204	169	210846	1.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63805.D
 Acq On : 29 Feb 2016 4:57 pm
 Operator : linseyk
 Sample : icc2828-1
 Misc : op91493a,e4m2828
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 08:09:02 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



9.6.1
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63806.D
 Acq On : 29 Feb 2016 5:30 pm
 Operator : linseyk
 Sample : ic2828-0.5
 Misc : op91493a,e4m2828
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 08:09:27 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	706984	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1206087	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1797932	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1424936	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	706984	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1206087	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	1364467	10.10	ppm	0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	20.20%
3) Phenol-d5	5.567	99	2182540	9.98	ppm	0.00
Spiked Amount	50.000			Recovery	=	19.96%
6) Nitrobenzene-d5	7.046	82	1720264	9.94	ppm	0.00
Spiked Amount	50.000			Recovery	=	19.88%
11) 2-Fluorobiphenyl	10.519	172	3003501	9.79	ppm	0.00
Spiked Amount	50.000			Recovery	=	19.58%
17) 2,4,6-Tribromophenol	13.395	330	494783	9.96	ppm	0.00
Spiked Amount	50.000			Recovery	=	19.92%
25) Terphenyl-d14	17.806	244	3192004	10.43	ppm	0.00
Spiked Amount	50.000			Recovery	=	20.86%
Target Compounds						
4) Phenol	5.580	94	584537	2.53	ppm	97
5) bis(2-Chloroethyl)ether	5.691	93	84356	0.51	ppm	95
7) Naphthalene	8.407	128	280891	0.51	ppm	99
8) Hexachlorobutadiene	8.701	225	43230	0.51	ppm	99
9) 2-Methylnaphthalene	9.756	142	105732	0.51	ppm	98
10) Hexachlorocyclopentadiene	10.114	237	37543	0.80	ppm	# 55
13) Acenaphthylene	11.498	152	175456	0.48	ppm	99
14) Acenaphthene	11.846	153	102203	0.50	ppm	99
15) Dibenzofuran	12.209	168	262174	0.49	ppm	94
16) Fluorene	12.894	166	189722	0.52	ppm	99
18) Hexachlorobenzene	13.995	284	63226	0.52	ppm	98
19) Pentachlorophenol	14.428	266	107178	2.03	ppm	96
20) Phenanthrene	14.799	178	279464	0.51	ppm	99
21) Anthracene	14.892	178	256062	0.50	ppm	99
23) Fluoranthene	17.034	202	291836	0.50	ppm	99
24) Pyrene	17.429	202	290213	0.49	ppm	98
26) Benzo[a]anthracene	19.500	228	226958	0.49	ppm	98
27) Chrysene	19.557	228	247800	0.50	ppm	99
29) Benzo[b]fluoranthene	21.160	252	271684	0.50	ppm	98
30) Benzo[k]fluoranthene	21.201	252	244194	0.53	ppm	97
31) Benzo[a]pyrene	21.614	252	246571	0.52	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.170	276	258485	0.51	ppm	98
33) Dibenz[a,h]anthracene	23.198	278	218668	0.52	ppm	93
34) Benzo[g,h,i]perylene	23.569	276	231644	0.52	ppm	100
36) 1,4-Dioxane	2.357	88	27183	0.49	ppm	97
37) 1-Methylnaphthalene	9.923	142	110558	0.49	ppm	97
39) 4,6-dinitro-2-methylph...	13.061	198	78310	2.01	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63806.D
 Acq On : 29 Feb 2016 5:30 pm
 Operator : linseyk
 Sample : ic2828-0.5
 Misc : op91493a,e4m2828
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 08:09:27 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

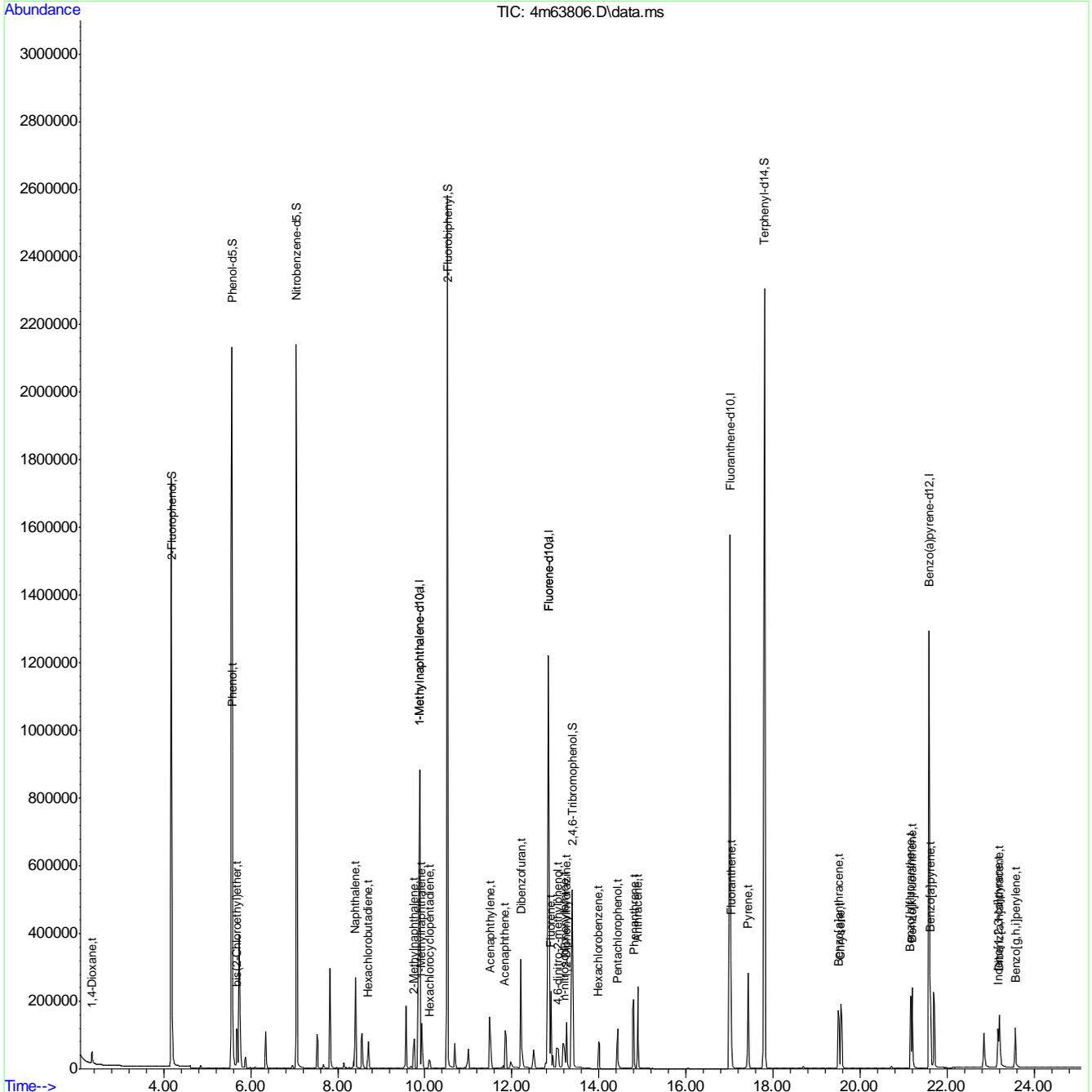
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	161267	0.50	ppm	100
41) n-nitrosodiphenylamine	13.204	169	95634	0.51	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63806.D
 Acq On : 29 Feb 2016 5:30 pm
 Operator : linseyk
 Sample : ic2828-0.5
 Misc : op91493a,e4m2828
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 08:09:27 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63807.D
 Acq On : 29 Feb 2016 6:03 pm
 Operator : linseyk
 Sample : ic2828-0.2
 Misc : op91493a,e4m2828
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 01 08:10:06 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	700454	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1186757	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1914526	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1594089	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	700454	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1186757	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	667163	4.96	ppm	0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	9.92%#
3) Phenol-d5	5.567	99	1061779	4.90	ppm	0.00
Spiked Amount	50.000			Recovery	=	9.80%
6) Nitrobenzene-d5	7.046	82	838503	4.91	ppm	0.00
Spiked Amount	50.000			Recovery	=	9.82%
11) 2-Fluorobiphenyl	10.519	172	1368724	4.55	ppm	0.00
Spiked Amount	50.000			Recovery	=	9.10%
17) 2,4,6-Tribromophenol	13.395	330	217309	4.46	ppm	0.00
Spiked Amount	50.000			Recovery	=	8.92%
25) Terphenyl-d14	17.806	244	1428293	4.29	ppm	0.00
Spiked Amount	50.000			Recovery	=	8.58%
Target Compounds						
4) Phenol	5.580	94	287160	1.25	ppm	99
5) bis(2-Chloroethyl)ether	5.690	93	41747	0.25	ppm	96
7) Naphthalene	8.407	128	140284	0.25	ppm	99
8) Hexachlorobutadiene	8.701	225	21078	0.25	ppm	98
9) 2-Methylnaphthalene	9.755	142	50409	0.24	ppm	99
10) Hexachlorocyclopentadiene	10.090	237	15743	0.38	ppm	98
13) Acenaphthylene	11.498	152	89543	0.25	ppm	99
14) Acenaphthene	11.846	153	51455	0.26	ppm	96
15) Dibenzofuran	12.209	168	139320	0.27	ppm	# 65
16) Fluorene	12.894	166	86521	0.24	ppm	96
18) Hexachlorobenzene	13.995	284	32207	0.26	ppm	98
19) Pentachlorophenol	14.428	266	44420	0.94	ppm	97
20) Phenanthrene	14.784	178	137761	0.25	ppm	89
21) Anthracene	14.892	178	121266	0.24	ppm	99
23) Fluoranthene	17.034	202	149564	0.24	ppm	97
24) Pyrene	17.429	202	139884	0.22	ppm	99
26) Benzo[a]anthracene	19.500	228	114017	0.23	ppm	97
27) Chrysene	19.557	228	128539	0.24	ppm	98
29) Benzo[b]fluoranthene	21.160	252	137262	0.22	ppm	99
30) Benzo[k]fluoranthene	21.201	252	114811	0.22	ppm	99
31) Benzo[a]pyrene	21.614	252	125999	0.23	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.170	276	129084	0.23	ppm	97
33) Dibenz[a,h]anthracene	23.197	278	107933	0.22	ppm	97
34) Benzo[g,h,i]perylene	23.555	276	116152	0.23	ppm	99
36) 1,4-Dioxane	2.357	88	15297	0.28	ppm	88
37) 1-Methylnaphthalene	9.923	142	56355	0.26	ppm	99
39) 4,6-dinitro-2-methylph...	13.061	198	28386	0.82	ppm	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63807.D
Acq On : 29 Feb 2016 6:03 pm
Operator : linseyk
Sample : ic2828-0.2
Misc : op91493a,e4m2828
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 01 08:10:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

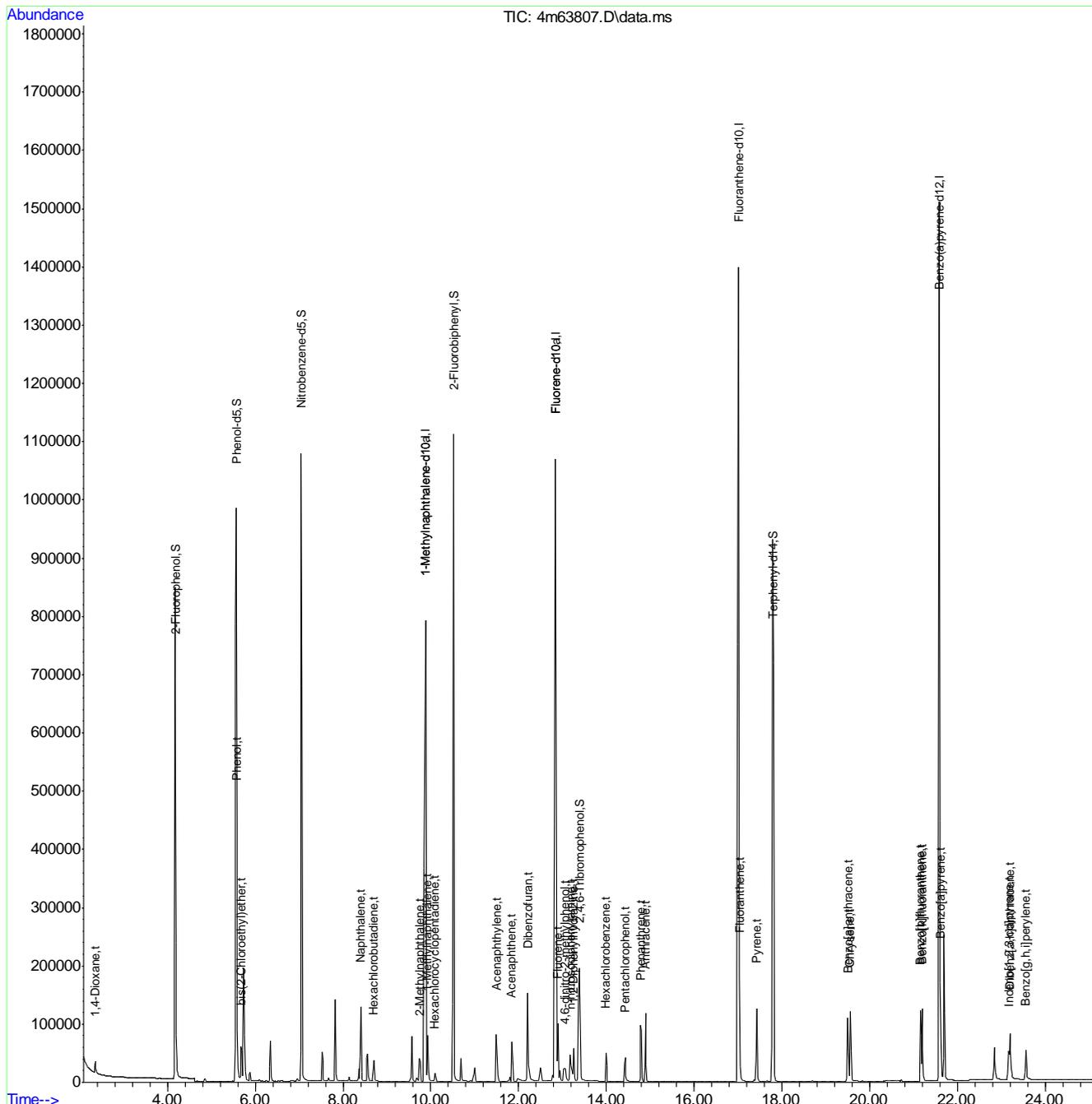
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	69139	0.22	ppm	99
41) n-nitrosodiphenylamine	13.180	169	46627	0.25	ppm #	49

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63807.D
 Acq On : 29 Feb 2016 6:03 pm
 Operator : linseyk
 Sample : ic2828-0.2
 Misc : op91493a,e4m2828
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 01 08:10:06 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



6 39.6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63808.D
 Acq On : 29 Feb 2016 6:35 pm
 Operator : linseyk
 Sample : ic2828-0.1
 Misc : op91493a,e4m2828
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 01 08:10:39 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	639637	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1083102	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1729786	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1454782	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	639637	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1083102	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	281624	2.12	ppm	0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	4.24%#
3) Phenol-d5	5.567	99	447297	2.10	ppm	0.00
Spiked Amount	50.000			Recovery	=	4.20%
6) Nitrobenzene-d5	7.046	82	323504	1.93	ppm	0.00
Spiked Amount	50.000			Recovery	=	3.86%
11) 2-Fluorobiphenyl	10.519	172	530045	1.85	ppm	0.00
Spiked Amount	50.000			Recovery	=	3.70%
17) 2,4,6-Tribromophenol	13.395	330	87378	1.89	ppm	0.00
Spiked Amount	50.000			Recovery	=	3.78%
25) Terphenyl-d14	17.787	244	523559	1.70	ppm	-0.02
Spiked Amount	50.000			Recovery	=	3.40%
Target Compounds						
						Qvalue
4) Phenol	5.581	94	111501	0.49	ppm	96
5) bis(2-Chloroethyl)ether	5.691	93	16333	0.10	ppm	93
7) Naphthalene	8.407	128	55579	0.10	ppm	99
8) Hexachlorobutadiene	8.701	225	8280	0.10	ppm	97
9) 2-Methylnaphthalene	9.756	142	19758	0.10	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	4767	0.13	ppm	98
13) Acenaphthylene	11.498	152	34577	0.10	ppm	99
14) Acenaphthene	11.846	153	20229	0.10	ppm	99
15) Dibenzofuran	12.209	168	53546	0.10	ppm	# 46
16) Fluorene	12.894	166	32444	0.09	ppm	95
18) Hexachlorobenzene	13.995	284	12339	0.10	ppm	98
19) Pentachlorophenol	14.428	266	13240	0.31	ppm	94
20) Phenanthrene	14.784	178	53014	0.10	ppm	89
21) Anthracene	14.892	178	44831	0.09	ppm	98
23) Fluoranthene	17.034	202	58361	0.10	ppm	95
24) Pyrene	17.430	202	50940	0.09	ppm	99
26) Benzo[a]anthracene	19.501	228	42370	0.09	ppm	98
27) Chrysene	19.557	228	48958	0.10	ppm	95
29) Benzo[b]fluoranthene	21.160	252	51919	0.09	ppm	97
30) Benzo[k]fluoranthene	21.201	252	42214	0.09	ppm	99
31) Benzo[a]pyrene	21.614	252	50224	0.10	ppm	97
32) Indeno[1,2,3-cd]pyrene	23.170	276	49510	0.09	ppm	97
33) Dibenz[a,h]anthracene	23.198	278	40412	0.09	ppm	94
34) Benzo[g,h,i]perylene	23.556	276	44897	0.09	ppm	99
36) 1,4-Dioxane	2.357	88	7547	0.13	ppm	91
37) 1-Methylnaphthalene	9.923	142	22236	0.10	ppm	100
39) 4,6-dinitro-2-methylph...	13.061	198	7985	0.27	ppm	69

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63808.D
 Acq On : 29 Feb 2016 6:35 pm
 Operator : linseyk
 Sample : ic2828-0.1
 Misc : op91493a,e4m2828
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 01 08:10:39 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

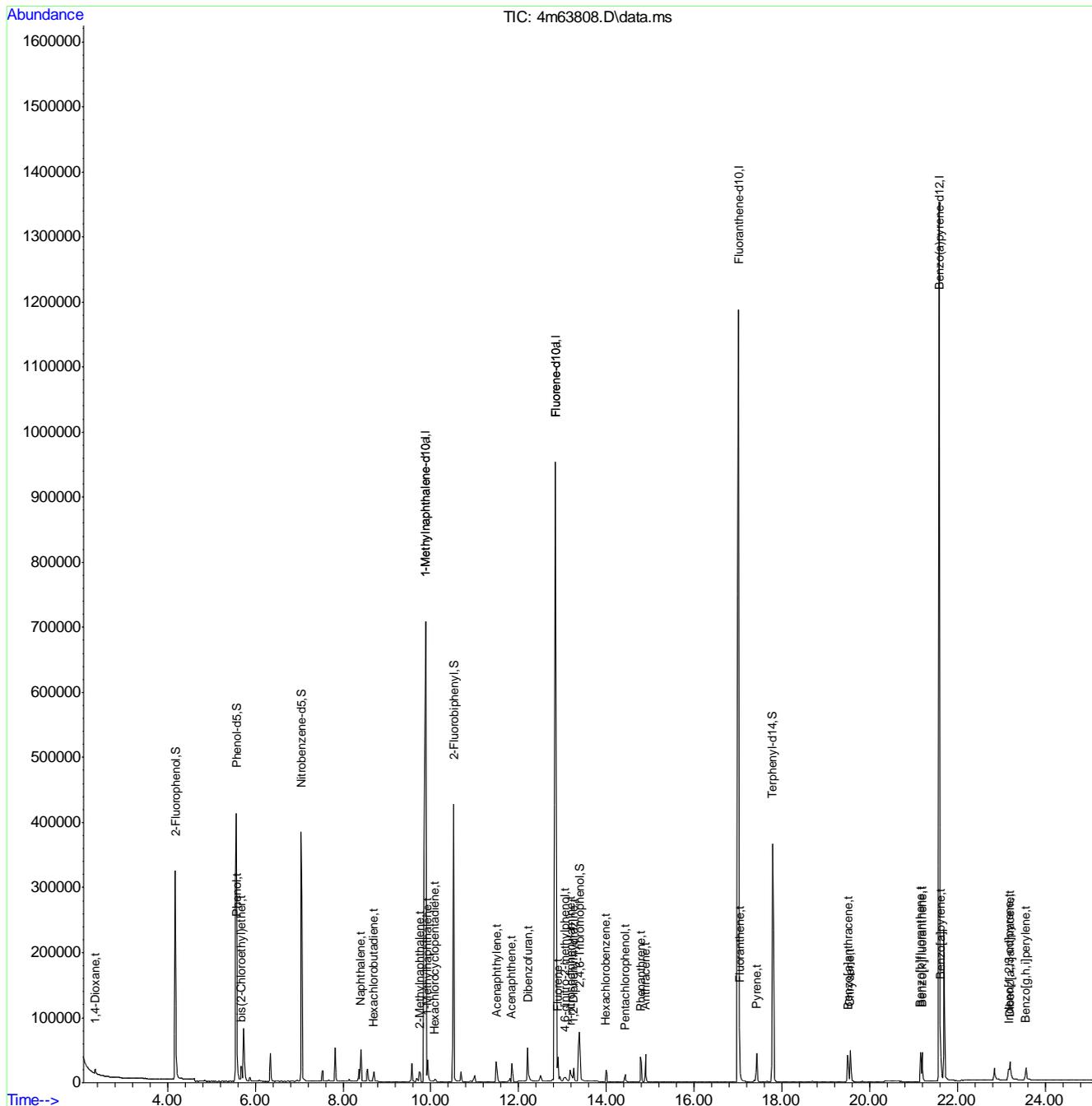
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	24537	0.08	ppm	100
41) n-nitrosodiphenylamine	13.180	169	17150	0.09	ppm #	46

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63808.D
 Acq On : 29 Feb 2016 6:35 pm
 Operator : linseyk
 Sample : ic2828-0.1
 Misc : op91493a,e4m2828
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 01 08:10:39 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



9.64
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63809.D
 Acq On : 29 Feb 2016 7:06 pm
 Operator : linseyk
 Sample : ic2828-0.05
 Misc : op91493a,e4m2828
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 01 08:25:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:25:13 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	694523	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1177003	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1909627	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1605492	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	694523	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1177003	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	163001	1.05	ppm	0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	2.10%#
3) Phenol-d5	5.567	99	257302	1.09	ppm	0.00
Spiked Amount	50.000			Recovery	=	2.18%
6) Nitrobenzene-d5	7.046	82	173857	0.99	ppm	0.00
Spiked Amount	50.000			Recovery	=	1.98%
11) 2-Fluorobiphenyl	10.519	172	286419	0.99	ppm	0.00
Spiked Amount	50.000			Recovery	=	1.98%
17) 2,4,6-Tribromophenol	13.395	330	50909	0.97	ppm	0.00
Spiked Amount	50.000			Recovery	=	1.94%
25) Terphenyl-d14	17.806	244	296255	0.96	ppm	0.00
Spiked Amount	50.000			Recovery	=	1.92%
Target Compounds						
						Qvalue
4) Phenol	5.580	94	60730	0.25	ppm	92
5) bis(2-Chloroethyl)ether	5.691	93	8868	0.05	ppm	88
7) Naphthalene	8.407	128	30290	0.05	ppm	100
8) Hexachlorobutadiene	8.701	225	4652	0.05	ppm	97
9) 2-Methylnaphthalene	9.756	142	10791	0.05	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	2032	0.32	ppm	95
13) Acenaphthylene	11.498	152	19078	0.05	ppm	100
14) Acenaphthene	11.846	153	10856	0.05	ppm	98
15) Dibenzofuran	12.209	168	29096	0.05	ppm	# 35
16) Fluorene	12.894	166	17430	0.05	ppm	99
18) Hexachlorobenzene	13.995	284	6890	0.05	ppm	96
19) Pentachlorophenol	14.428	266	6607	0.41	ppm	93
20) Phenanthrene	14.784	178	29167	0.05	ppm	89
21) Anthracene	14.892	178	24033	0.05	ppm	98
23) Fluoranthene	17.034	202	32144	0.05	ppm	93
24) Pyrene	17.429	202	28146	0.04	ppm	99
26) Benzo[a]anthracene	19.500	228	23631	0.05	ppm	98
27) Chrysene	19.557	228	25845	0.05	ppm	99
29) Benzo[b]fluoranthene	21.160	252	27044	0.04	ppm	98
30) Benzo[k]fluoranthene	21.201	252	23516	0.04	ppm	99
31) Benzo[a]pyrene	21.614	252	21190	0.04	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.170	276	25980	0.04	ppm	98
33) Dibenz[a,h]anthracene	23.198	278	21606	0.04	ppm	89
34) Benzo[g,h,i]perylene	23.569	276	24653	0.05	ppm	100
37) 1-Methylnaphthalene	9.923	142	12317	0.05	ppm	98
39) 4,6-dinitro-2-methylph...	13.061	198	3980	1.05	ppm	59
40) 1,2-Diphenylhydrazine	13.252	77	13470	0.04	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63809.D
Acq On : 29 Feb 2016 7:06 pm
Operator : linseyk
Sample : ic2828-0.05
Misc : op91493a,e4m2828
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 01 08:25:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:25:13 2016
Response via : Initial Calibration

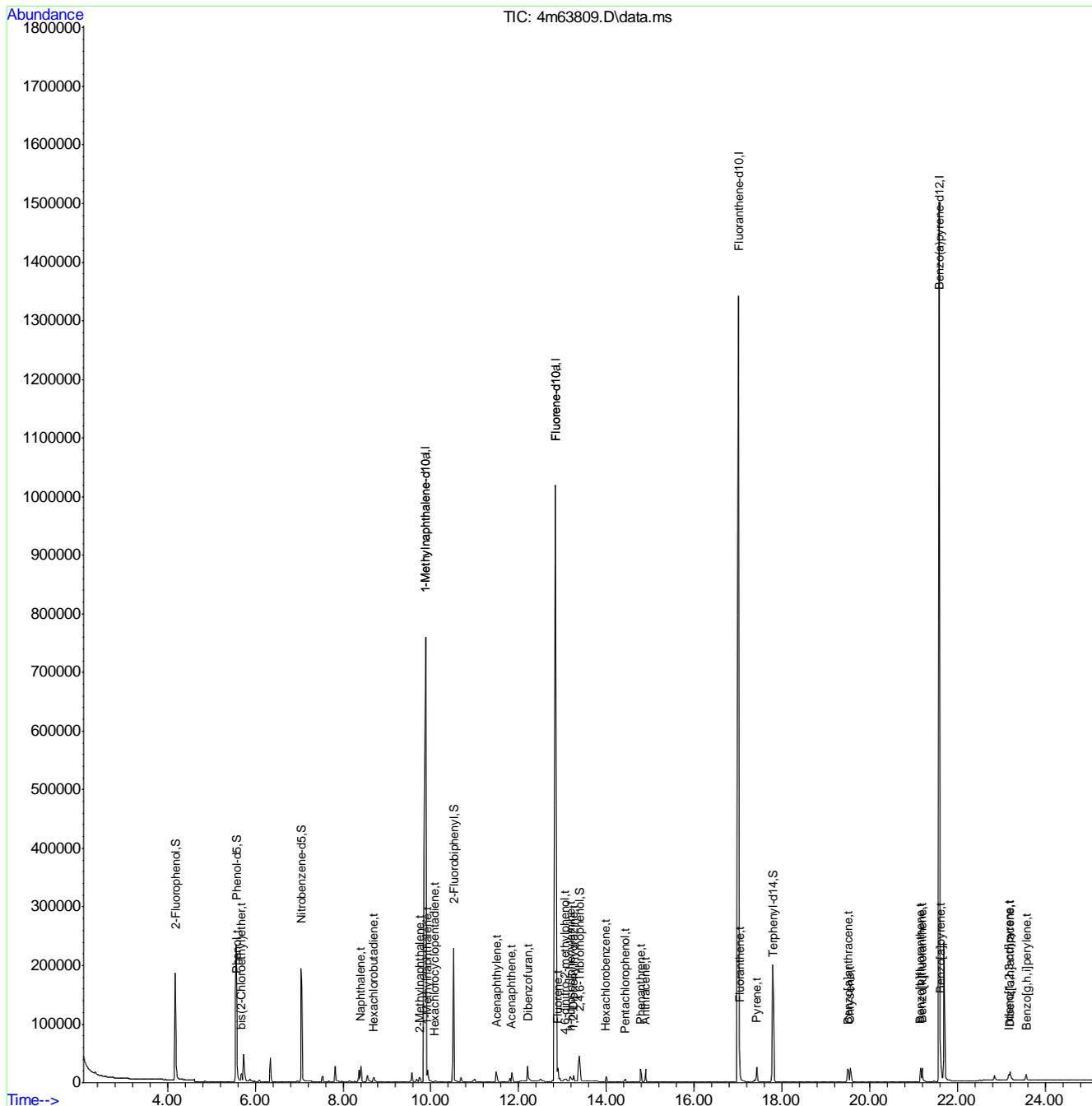
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.180	169	9063	0.05	ppm #	47

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63809.D
 Acq On : 29 Feb 2016 7:06 pm
 Operator : linseyk
 Sample : ic2828-0.05
 Misc : op91493a,e4m2828
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 01 08:25:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:25:13 2016
 Response via : Initial Calibration



6 9.5

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63810.D
 Acq On : 29 Feb 2016 7:38 pm
 Operator : linseyk
 Sample : ic2828-0.02
 Misc : op91493a,e4m2828
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 01 08:12:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	716215	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1193120	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1963049	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1587835	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	716215	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1193120	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	83839	0.54	ppm	0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	1.08%#
3) Phenol-d5	5.567	99	127588	0.52	ppm	0.00
Spiked Amount	50.000			Recovery	=	1.04%
6) Nitrobenzene-d5	7.046	82	71362	0.39	ppm	0.00
Spiked Amount	50.000			Recovery	=	0.78%
11) 2-Fluorobiphenyl	10.519	172	118784	0.38	ppm	0.00
Spiked Amount	50.000			Recovery	=	0.76%
17) 2,4,6-Tribromophenol	13.395	330	25138	0.50	ppm	0.00
Spiked Amount	50.000			Recovery	=	1.00%
25) Terphenyl-d14	17.787	244	125468	0.38	ppm	-0.02
Spiked Amount	50.000			Recovery	=	0.76%
Target Compounds						
						Qvalue
4) Phenol	5.580	94	24674	0.10	ppm	91
5) bis(2-Chloroethyl)ether	5.691	93	3941	0.02	ppm	73
7) Naphthalene	8.407	128	12947	0.02	ppm	100
8) Hexachlorobutadiene	8.701	225	1967	0.02	ppm	98
9) 2-Methylnaphthalene	9.756	142	4733	0.02	ppm	95
10) Hexachlorocyclopentadiene	10.090	237	623	0.02	ppm	85
13) Acenaphthylene	11.498	152	8052	0.02	ppm	98
14) Acenaphthene	11.846	153	4619	0.02	ppm	98
15) Dibenzofuran	12.209	168	12287	0.02	ppm	# 21
16) Fluorene	12.894	166	7135	0.02	ppm	96
18) Hexachlorobenzene	13.995	284	2926	0.02	ppm	95
19) Pentachlorophenol	14.428	266	2454	0.06	ppm	90
20) Phenanthrene	14.784	178	12191	0.02	ppm	90
21) Anthracene	14.892	178	10459	0.02	ppm	99
23) Fluoranthene	17.034	202	14607	0.02	ppm	83
24) Pyrene	17.429	202	12045	0.02	ppm	97
26) Benzo[a]anthracene	19.500	228	10808	0.02	ppm	99
27) Chrysene	19.557	228	10844	0.02	ppm	97
29) Benzo[b]fluoranthene	21.160	252	11416	0.02	ppm	98
30) Benzo[k]fluoranthene	21.201	252	8805	0.02	ppm	96
31) Benzo[a]pyrene	21.614	252	9173	0.02	ppm	97
32) Indeno[1,2,3-cd]pyrene	23.170	276	11303	0.02	ppm	100
33) Dibenz[a,h]anthracene	23.198	278	8304	0.02	ppm	# 67
34) Benzo[g,h,i]perylene	23.569	276	10451	0.02	ppm	100
37) 1-Methylnaphthalene	9.923	142	5399	0.02	ppm	99
39) 4,6-dinitro-2-methylph...	13.061	198	1288	0.05	ppm	46
40) 1,2-Diphenylhydrazine	13.252	77	5851	0.02	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63810.D
Acq On : 29 Feb 2016 7:38 pm
Operator : linseyk
Sample : ic2828-0.02
Misc : op91493a,e4m2828
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 01 08:12:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

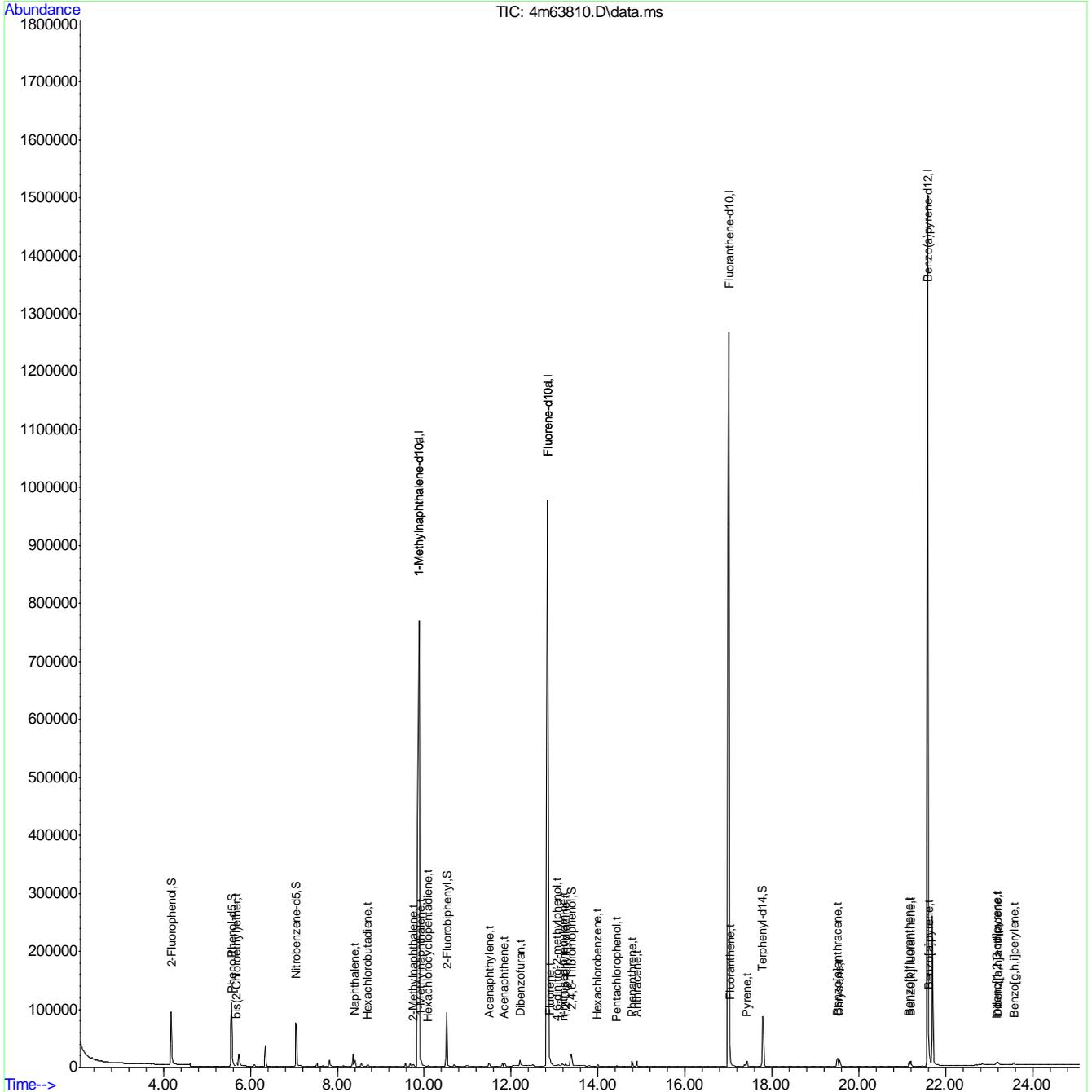
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) n-nitrosodiphenylamine	13.204	169	4154	0.02	ppm	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63810.D
 Acq On : 29 Feb 2016 7:38 pm
 Operator : linseyk
 Sample : ic2828-0.02
 Misc : op91493a,e4m2828
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 01 08:12:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



6 9'9'6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63811.D
 Acq On : 29 Feb 2016 8:10 pm
 Operator : linseyk
 Sample : ic2828-0.01
 Misc : op91493a,e4m2828
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 01 08:13:25 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	689334	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1099348	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1816415	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1499607	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	689334	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1099348	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.179	112	50726	0.32	ppm	0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.64%#
3) Phenol-d5	5.567	99	75313	0.30	ppm	0.00
Spiked Amount	50.000			Recovery	=	0.60%
6) Nitrobenzene-d5	7.061	82	33456	0.19	ppm	0.02
Spiked Amount	50.000			Recovery	=	0.38%
11) 2-Fluorobiphenyl	10.519	172	57836	0.19	ppm	0.00
Spiked Amount	50.000			Recovery	=	0.38%
17) 2,4,6-Tribromophenol	13.395	330	15393	0.33	ppm	0.00
Spiked Amount	50.000			Recovery	=	0.66%
25) Terphenyl-d14	17.806	244	67482	0.22	ppm	0.00
Spiked Amount	50.000			Recovery	=	0.44%
Target Compounds						
						Qvalue
4) Phenol	5.580	94	11417	0.05	ppm	86
5) bis(2-Chloroethyl)ether	5.691	93	1951	0.01	ppm	79
7) Naphthalene	8.407	128	6223	0.01	ppm	99
8) Hexachlorobutadiene	8.701	225	933	0.01	ppm	99
9) 2-Methylnaphthalene	9.756	142	2433	0.01	ppm	92
13) Acenaphthylene	11.498	152	3625	0.01	ppm	99
14) Acenaphthene	11.846	153	2116	0.01	ppm	98
15) Dibenzofuran	12.209	168	5652	0.01	ppm	# 16
16) Fluorene	12.894	166	3380	0.01	ppm	91
18) Hexachlorobenzene	13.995	284	1480	0.01	ppm	98
19) Pentachlorophenol	14.428	266	1319	0.04	ppm	94
20) Phenanthrene	14.784	178	6228	0.01	ppm	89
21) Anthracene	14.892	178	5578	0.01	ppm	99
23) Fluoranthene	17.034	202	8490	0.01	ppm	97
24) Pyrene	17.430	202	6233	0.01	ppm	99
26) Benzo[a]anthracene	19.501	228	5666	0.01	ppm	98
27) Chrysene	19.557	228	6140	0.01	ppm	97
29) Benzo[b]fluoranthene	21.160	252	5699	0.01	ppm	98
30) Benzo[k]fluoranthene	21.201	252	4864	0.01	ppm	97
31) Benzo[a]pyrene	21.614	252	5220	0.01	ppm	98
32) Indeno[1,2,3-cd]pyrene	23.170	276	5992	0.01	ppm	97
33) Dibenz[a,h]anthracene	23.198	278	4916	0.01	ppm	86
34) Benzo[g,h,i]perylene	23.569	276	5417	0.01	ppm	99
37) 1-Methylnaphthalene	9.923	142	2467	0.01	ppm	100
40) 1,2-Diphenylhydrazine	13.252	77	2741	0.01	ppm	100
41) n-nitrosodiphenylamine	13.204	169	1991	0.01	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63811.D
Acq On : 29 Feb 2016 8:10 pm
Operator : linseyk
Sample : ic2828-0.01
Misc : op91493a,e4m2828
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 01 08:13:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

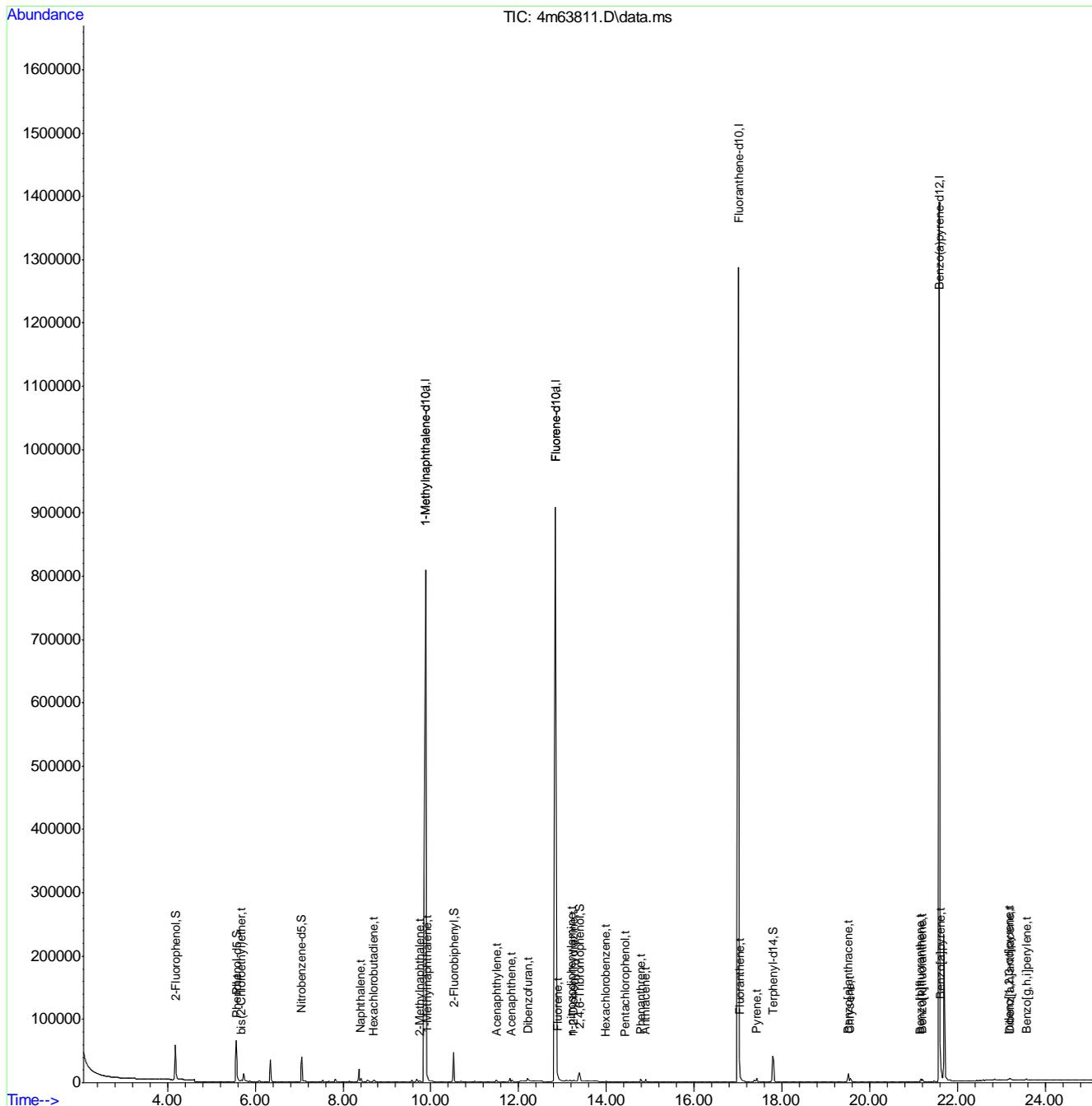
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63811.D
 Acq On : 29 Feb 2016 8:10 pm
 Operator : linseyk
 Sample : ic2828-0.01
 Misc : op91493a,e4m2828
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 01 08:13:25 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



6 796

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63812.D
 Acq On : 29 Feb 2016 8:41 pm
 Operator : linseyk
 Sample : ic2828-5.0
 Misc : op91493a,e4m2828
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 01 08:13:42 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	705319	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1510468	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1975318	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.586	264	1566003	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	705319	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1510468	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.169	112	14223355	88.34	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	176.68%#
3) Phenol-d5	5.567	99	17366664	68.32	ppm	0.00
Spiked Amount	50.000			Recovery	=	136.64%
6) Nitrobenzene-d5	7.061	82	14913918	82.40	ppm	0.02
Spiked Amount	50.000			Recovery	=	164.80%
11) 2-Fluorobiphenyl	10.519	172	13470904	44.27	ppm	0.00
Spiked Amount	50.000			Recovery	=	88.54%
17) 2,4,6-Tribromophenol	13.395	330	7684170	120.23	ppm	0.00
Spiked Amount	50.000			Recovery	=	240.46%
25) Terphenyl-d14	17.806	244	15853243	48.13	ppm	0.00
Spiked Amount	50.000			Recovery	=	96.26%
Target Compounds						
						Qvalue
4) Phenol	5.580	94	6382844	25.72	ppm	42
5) bis(2-Chloroethyl)ether	5.690	93	944843	5.10	ppm	65
7) Naphthalene	8.407	128	3024091	4.90	ppm	100
8) Hexachlorobutadiene	8.701	225	464420	4.96	ppm	97
9) 2-Methylnaphthalene	9.755	142	1132272	4.98	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	611256	16.30	ppm	97
13) Acenaphthylene	11.498	152	2216760	4.50	ppm	99
14) Acenaphthene	11.846	153	1168819	4.13	ppm	97
15) Dibenzofuran	12.209	168	3172752	4.22	ppm	90
16) Fluorene	12.894	166	2019551	4.29	ppm	98
18) Hexachlorobenzene	13.995	284	687483	3.84	ppm	99
19) Pentachlorophenol	14.413	266	1893780	38.29	ppm	72
20) Phenanthrene	14.784	178	3082371	4.01	ppm	88
21) Anthracene	14.892	178	3146514	4.66	ppm	99
23) Fluoranthene	17.034	202	3400660	5.02	ppm	99
24) Pyrene	17.429	202	3406966	5.37	ppm	98
26) Benzo[a]anthracene	19.500	228	2823430	5.49	ppm	99
27) Chrysene	19.557	228	2848581	5.01	ppm	99
29) Benzo[b]fluoranthene	21.160	252	3183161	5.38	ppm	99
30) Benzo[k]fluoranthene	21.201	252	2630504	5.23	ppm	98
31) Benzo[a]pyrene	21.614	252	2672123	5.07	ppm	100
32) Indeno[1,2,3-cd]pyrene	23.170	276	2992076	5.35	ppm	100
33) Dibenz[a,h]anthracene	23.197	278	2498977	5.35	ppm	98
34) Benzo[g,h,i]perylene	23.569	276	2549968	5.04	ppm	100
36) 1,4-Dioxane	2.357	88	303830	4.50	ppm	91
37) 1-Methylnaphthalene	9.923	142	1297652	5.22	ppm	98
39) 4,6-dinitro-2-methylph...	13.061	198	2055270	61.62	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63812.D
 Acq On : 29 Feb 2016 8:41 pm
 Operator : linseyk
 Sample : ic2828-5.0
 Misc : op91493a,e4m2828
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 01 08:13:42 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

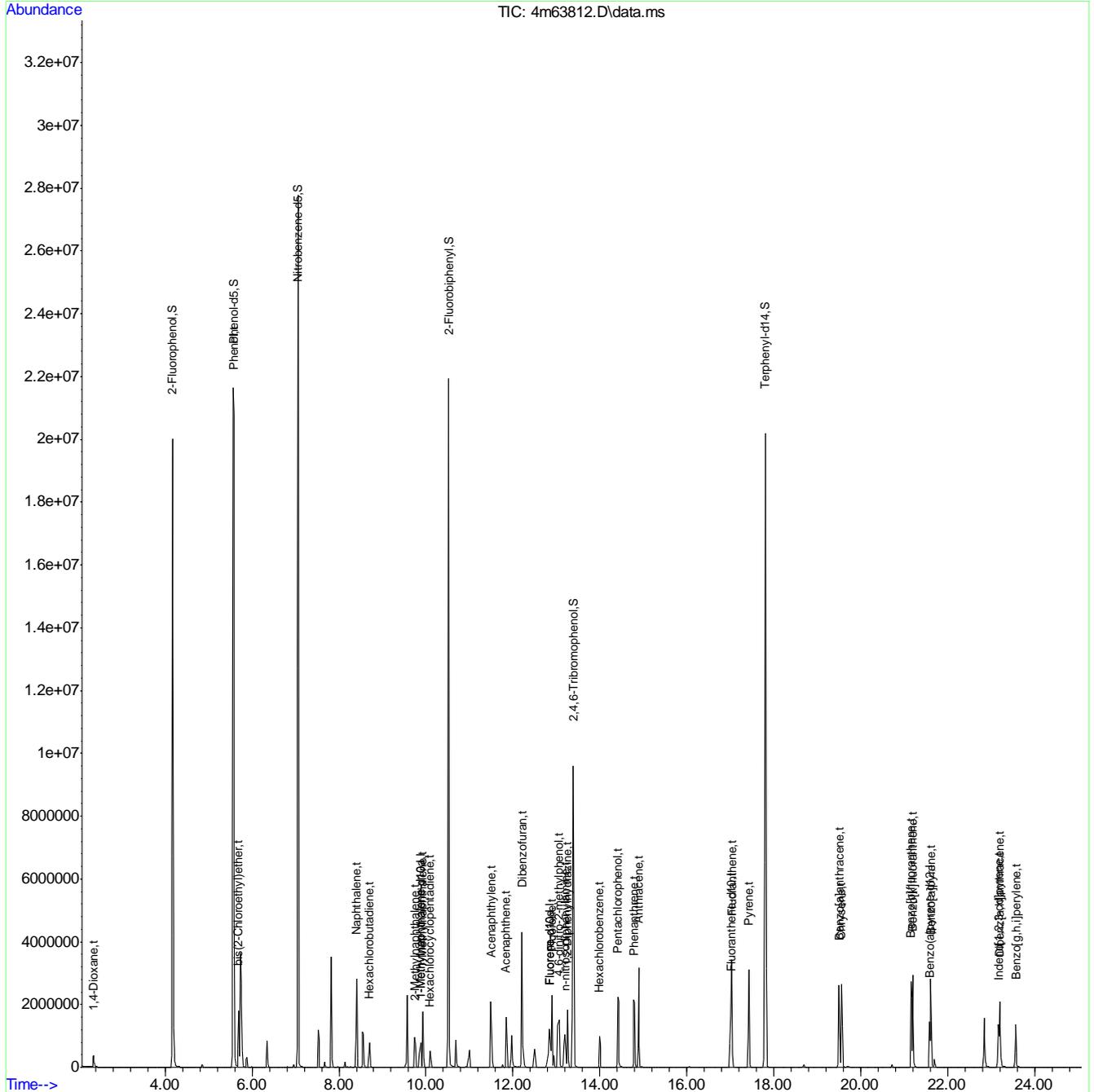
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	2187522	5.49	ppm	97
41) n-nitrosodiphenylamine	13.204	169	1215551	4.82	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63812.D
 Acq On : 29 Feb 2016 8:41 pm
 Operator : linseyk
 Sample : ic2828-5.0
 Misc : op91493a,e4m2828
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 01 08:13:42 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



6 896

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63813.D
 Acq On : 29 Feb 2016 9:12 pm
 Operator : linseyk
 Sample : ic2828-2.5
 Misc : op91493a,e4m2828
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 08:14:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	753656	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1382567	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	2011785	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1644955	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	753656	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1382567	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.169	112	8112991	47.96	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	95.92%#
3) Phenol-d5	5.567	99	11744566	45.29	ppm	0.00
Spiked Amount	50.000			Recovery	=	90.58%
6) Nitrobenzene-d5	7.046	82	10075705	53.44	ppm	0.00
Spiked Amount	50.000			Recovery	=	106.88%
11) 2-Fluorobiphenyl	10.519	172	12818846	42.83	ppm	0.00
Spiked Amount	50.000			Recovery	=	85.66%
17) 2,4,6-Tribromophenol	13.395	330	3336877	55.18	ppm	0.00
Spiked Amount	50.000			Recovery	=	110.36%
25) Terphenyl-d14	17.806	244	12792211	41.18	ppm	0.00
Spiked Amount	50.000			Recovery	=	82.36%
Target Compounds						
						Qvalue
4) Phenol	5.580	94	3522911	13.23	ppm	94
5) bis(2-Chloroethyl)ether	5.691	93	497389	2.50	ppm	89
7) Naphthalene	8.407	128	1632864	2.48	ppm	99
8) Hexachlorobutadiene	8.701	225	248734	2.49	ppm	97
9) 2-Methylnaphthalene	9.755	142	597419	2.46	ppm	98
10) Hexachlorocyclopentadiene	10.090	237	310595	6.88	ppm	95
13) Acenaphthylene	11.498	152	1219861	2.74	ppm	99
14) Acenaphthene	11.846	153	630800	2.49	ppm	95
15) Dibenzofuran	12.209	168	1751615	2.60	ppm	81
16) Fluorene	12.894	166	1041346	2.46	ppm	97
18) Hexachlorobenzene	13.995	284	371931	2.34	ppm	96
19) Pentachlorophenol	14.413	266	954085	19.36	ppm	75
20) Phenanthrene	14.784	178	1638249	2.39	ppm	90
21) Anthracene	14.892	178	1618241	2.64	ppm	99
23) Fluoranthene	17.034	202	1791841	2.60	ppm	98
24) Pyrene	17.429	202	1733255	2.65	ppm	97
26) Benzo[a]anthracene	19.500	228	1444964	2.71	ppm	98
27) Chrysene	19.557	228	1534224	2.65	ppm	97
29) Benzo[b]fluoranthene	21.160	252	1685428	2.68	ppm	99
30) Benzo[k]fluoranthene	21.201	252	1399436	2.63	ppm	100
31) Benzo[a]pyrene	21.614	252	1439006	2.59	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.170	276	1533293	2.58	ppm	96
33) Dibenz[a,h]anthracene	23.197	278	1280250	2.58	ppm	99
34) Benzo[g,h,i]perylene	23.569	276	1320767	2.48	ppm	100
36) 1,4-Dioxane	2.357	88	154408	2.18	ppm	77
37) 1-Methylnaphthalene	9.923	142	703291	2.63	ppm	95
39) 4,6-dinitro-2-methylph...	13.061	198	773118	20.35	ppm	96

696
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63813.D
Acq On : 29 Feb 2016 9:12 pm
Operator : linseyk
Sample : ic2828-2.5
Misc : op91493a,e4m2828
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 08:14:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:07:53 2016
Response via : Initial Calibration

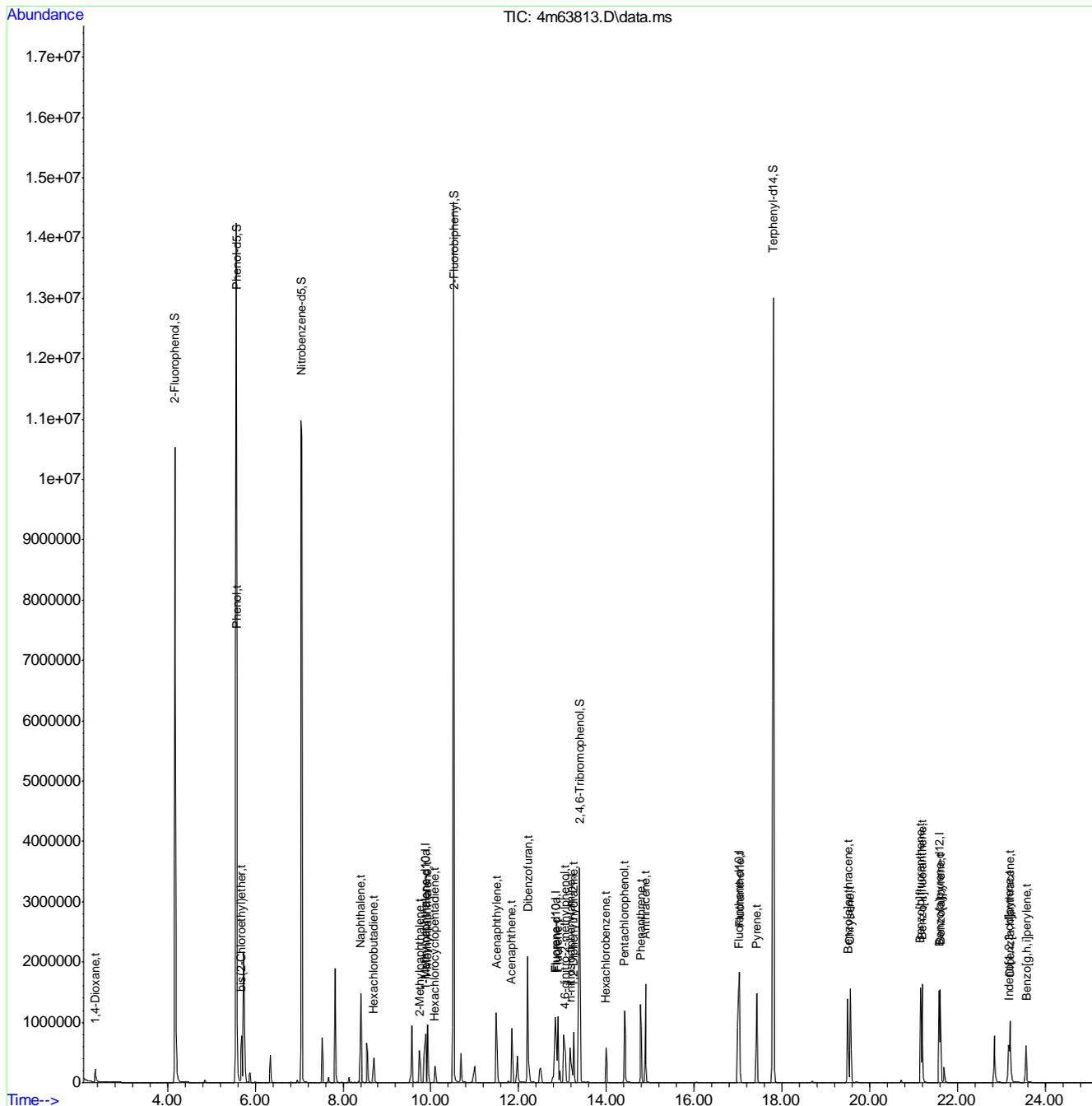
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.252	77	1012220	2.72	ppm	100
41) n-nitrosodiphenylamine	13.180	169	593056	2.59	ppm #	47

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63813.D
 Acq On : 29 Feb 2016 9:12 pm
 Operator : linseyk
 Sample : ic2828-2.5
 Misc : op91493a,e4m2828
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 01 08:14:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:07:53 2016
 Response via : Initial Calibration



6 696

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63814.D
 Acq On : 29 Feb 2016 9:43 pm
 Operator : linseyk
 Sample : icv2828-1.0
 Misc : op91493a,e4m2828
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 08:28:06 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	846370	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1516052	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	2386073	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1846435	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	846370	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1516052	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
Target Compounds						
5) bis(2-Chloroethyl)ether	5.690	93	253551	1.14	ppm	93
7) Naphthalene	8.407	128	807029	1.09	ppm	99
8) Hexachlorobutadiene	8.701	225	124008	1.11	ppm	93
9) 2-Methylnaphthalene	9.732	142	301131	1.11	ppm	# 48
10) Hexachlorocyclopentadiene	10.090	237	51811	0.97	ppm	93
13) Acenaphthylene	11.498	152	558238	1.13	ppm	98
14) Acenaphthene	11.846	153	305138	1.10	ppm	95
15) Dibenzofuran	12.209	168	832753	1.12	ppm	# 14
16) Fluorene	12.894	166	457382	0.99	ppm	95
18) Hexachlorobenzene	13.995	284	170203	0.98	ppm	94
20) Phenanthrene	14.784	178	734412	0.98	ppm	90
21) Anthracene	14.892	178	689142	1.02	ppm	98
23) Fluoranthene	17.034	202	823079	1.00	ppm	97
24) Pyrene	17.429	202	800753	1.02	ppm	98
26) Benzo[a]anthracene	19.500	228	625302	0.98	ppm	99
27) Chrysene	19.557	228	665910	0.96	ppm	98
29) Benzo[b]fluoranthene	21.160	252	674470	0.94	ppm	97
30) Benzo[k]fluoranthene	21.201	252	611396	1.02	ppm	98
31) Benzo[a]pyrene	21.614	252	644760	1.03	ppm	99
32) Indeno[1,2,3-cd]pyrene	23.170	276	656638	0.98	ppm	97
33) Dibenz[a,h]anthracene	23.197	278	534040	0.95	ppm	98
34) Benzo[g,h,i]perylene	23.555	276	565323	0.95	ppm	99
36) 1,4-Dioxane	2.388	88	76578	0.98	ppm	79
40) 1,2-Diphenylhydrazine	13.252	77	391506	0.95	ppm	96
41) n-nitrosodiphenylamine	13.180	169	261439	1.03	ppm	# 50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
Data File : 4m63814.D
Acq On : 29 Feb 2016 9:43 pm
Operator : linseyk
Sample : icv2828-1.0
Misc : op91493a,e4m2828
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 08:28:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Tue Mar 01 08:26:32 2016
Response via : Initial Calibration

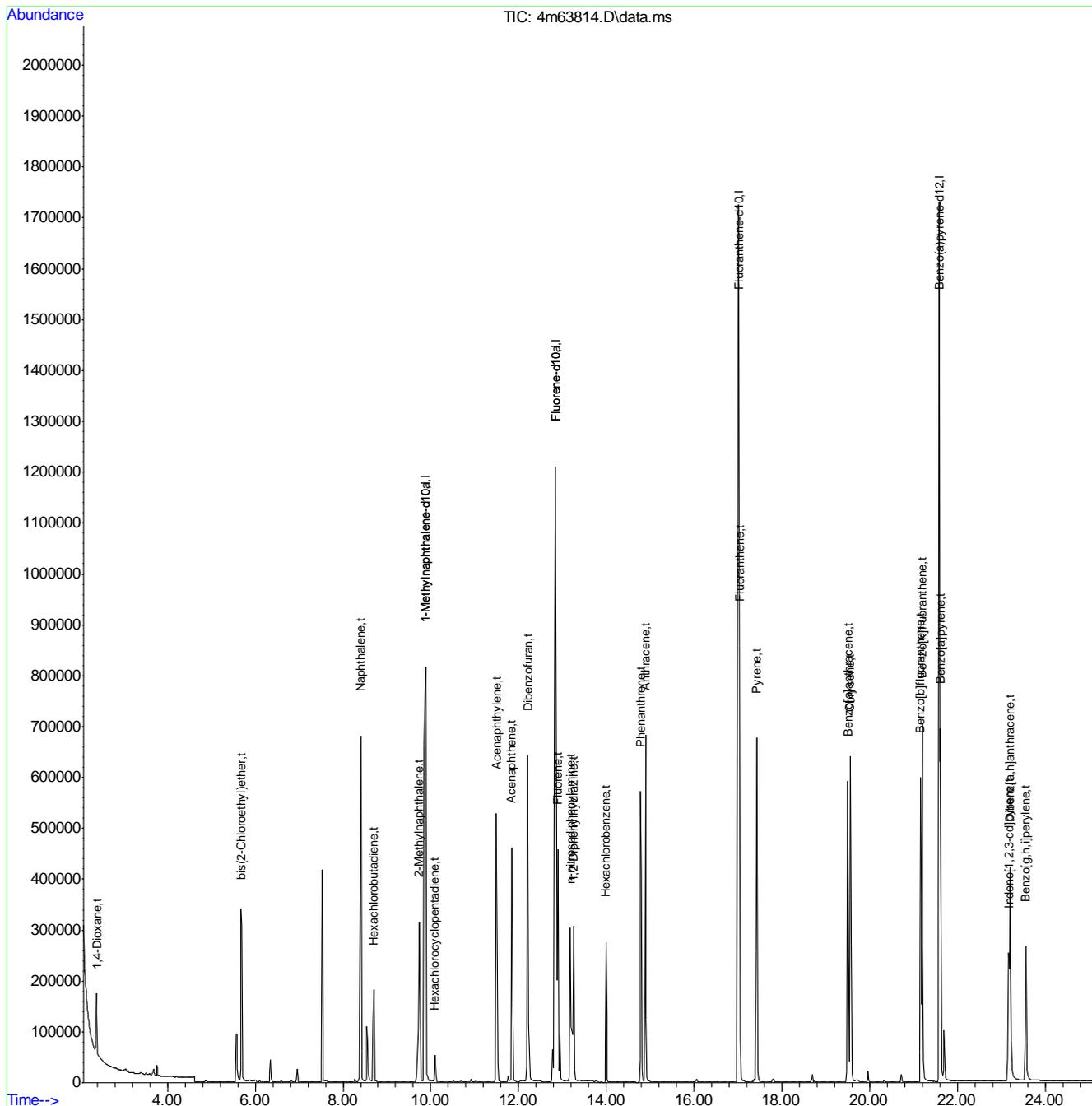
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63814.D
 Acq On : 29 Feb 2016 9:43 pm
 Operator : linseyk
 Sample : icv2828-1.0
 Misc : op91493a,e4m2828
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 01 08:28:06 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration



9.6-10
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63815.D
 Acq On : 29 Feb 2016 10:14 pm
 Operator : linseyk
 Sample : icv2828-1.0
 Misc : op91493a,e4m2828
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 01 08:28:45 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	671339	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1161296	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1908813	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1574374	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	671339	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1161296	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000			Recovery	=	0.00%
Target Compounds						
37) 1-Methylnaphthalene	9.923	142	261504	1.09	ppm	Qvalue 95

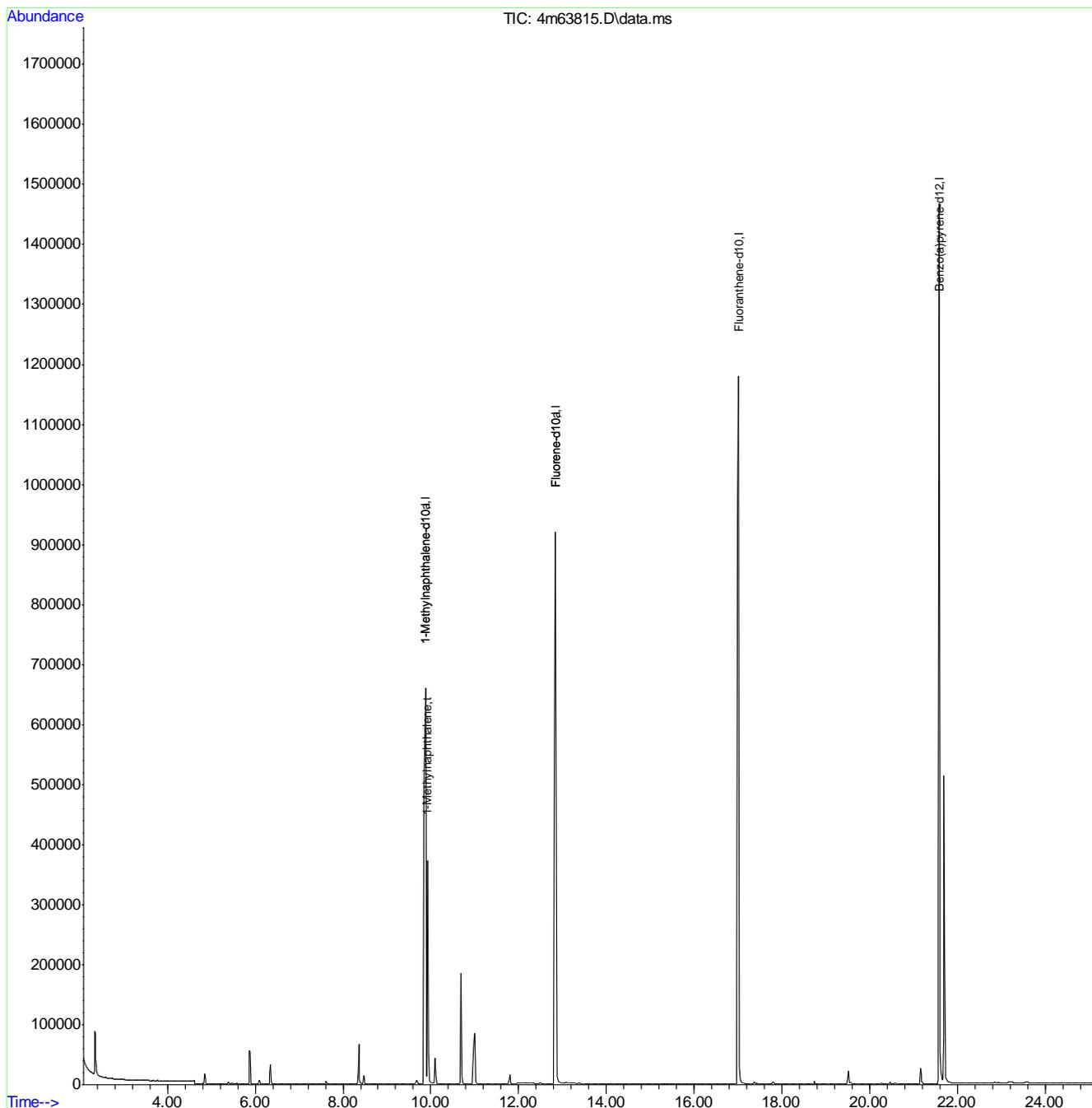
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.11
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63815.D
 Acq On : 29 Feb 2016 10:14 pm
 Operator : linseyk
 Sample : icv2828-1.0
 Misc : op91493a,e4m2828
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 01 08:28:45 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration



9.6.11
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63816.D
 Acq On : 29 Feb 2016 10:45 pm
 Operator : linseyk
 Sample : icv2828-1.0
 Misc : op91493a,e4m2828
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 08:29:16 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.875	152	657887	4.00	ppm	0.00
12) Fluorene-d10	12.846	176	1185062	4.00	ppm	0.00
22) Fluoranthene-d10	17.015	212	1818452	4.00	ppm	0.00
28) Benzo(a)pyrene-d12	21.587	264	1455844	4.00	ppm	0.00
35) 1-Methylnaphthalene-d10a	9.875	152	657887	4.00	ppm	0.00
38) Fluorene-d10a	12.846	176	1185062	4.00	ppm	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery	=	0.00%#	
3) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
6) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
11) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
17) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
4) Phenol	5.580	94	1005232	4.29	ppm	94
19) Pentachlorophenol	14.428	266	208142	3.55	ppm	99
39) 4,6-dinitro-2-methylph...	13.061	198	146475	3.69	ppm	98

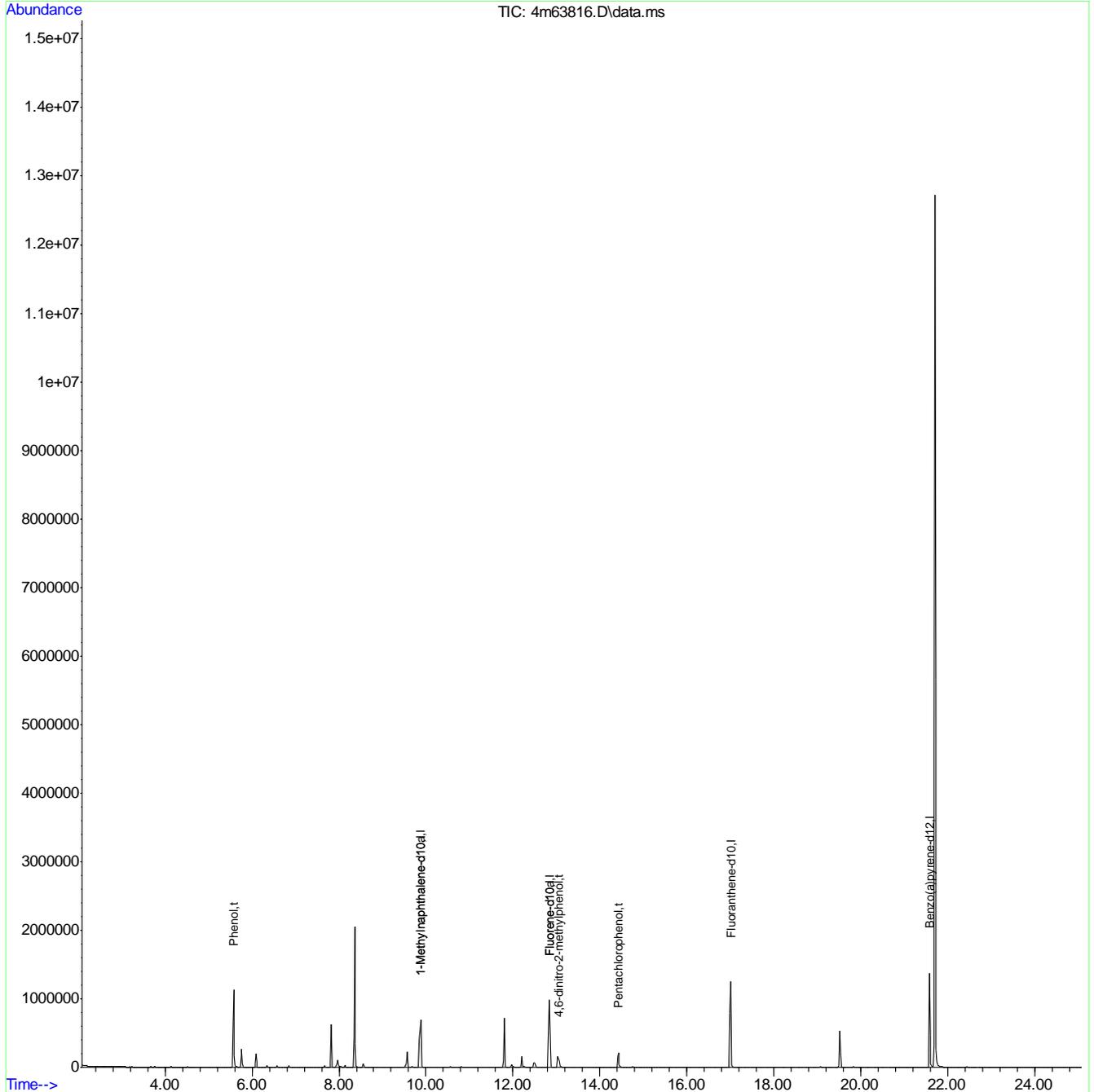
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.12
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2828\
 Data File : 4m63816.D
 Acq On : 29 Feb 2016 10:45 pm
 Operator : linseyk
 Sample : icv2828-1.0
 Misc : op91493a,e4m2828
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 08:29:16 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Tue Mar 01 08:26:32 2016
 Response via : Initial Calibration



9.6.12
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64041.D
 Acq On : 14 Mar 2016 9:37 am
 Operator : linseyk
 Sample : cc2828-.5
 Misc : op91969a,e4m2839
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 10:02:41 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Mar 14 09:02:45 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	9.899	152	365894	4.00	ppm	# 0.02
12) Fluorene-d10	12.870	176	659473	4.00	ppm	0.02
22) Fluoranthene-d10	17.053	212	1066583	4.00	ppm	0.04
28) Benzo(a)pyrene-d12	21.628	264	813611	4.00	ppm	0.04
35) 1-Methylnaphthalene-d10a	9.899	152	365894	4.00	ppm	# 0.02
38) Fluorene-d10a	12.870	176	659473	4.00	ppm	# 0.02
System Monitoring Compounds						
2) 2-Fluorophenol	4.221	112	824235	10.09	ppm	-0.02
Spiked Amount	50.000	Range	11 - 58	Recovery	=	20.18%
3) Phenol-d5	5.608	99	1338100	10.75	ppm	0.04
Spiked Amount	50.000			Recovery	=	21.50%
6) Nitrobenzene-d5	7.092	82	1066964	11.56	ppm	0.05
Spiked Amount	50.000			Recovery	=	23.12%
11) 2-Fluorobiphenyl	10.543	172	1264490	8.26	ppm	0.02
Spiked Amount	50.000			Recovery	=	16.52%
17) 2,4,6-Tribromophenol	13.419	330	327043	11.17	ppm	0.02
Spiked Amount	50.000			Recovery	=	22.34%
25) Terphenyl-d14	17.825	244	1636631	9.53	ppm	0.02
Spiked Amount	50.000			Recovery	=	19.06%
Target Compounds						
4) Phenol	5.622	94	357087	2.74	ppm	Qvalue 63
5) bis(2-Chloroethyl)ether	5.718	93	51841	0.54	ppm	# 38
7) Naphthalene	8.438	128	173421	0.54	ppm	95
8) Hexachlorobutadiene	8.732	225	27997	0.58	ppm	89
9) 2-Methylnaphthalene	9.779	142	78292	0.67	ppm	62
10) Hexachlorocyclopentadiene	10.137	237	34524	1.38	ppm	75
13) Acenaphthylene	11.545	152	125324	0.58	ppm	94
14) Acenaphthene	11.890	153	70566	0.58	ppm	81
15) Dibenzofuran	12.263	168	115060	0.36	ppm	# 26
16) Fluorene	12.917	166	100664	0.50	ppm	98
18) Hexachlorobenzene	14.042	284	39968	0.53	ppm	90
19) Pentachlorophenol	14.474	266	84552	2.72	ppm	95
20) Phenanthrene	14.830	178	169545	0.52	ppm	92
21) Anthracene	14.938	178	157446	0.54	ppm	96
23) Fluoranthene	17.072	202	176559	0.48	ppm	99
24) Pyrene	17.467	202	179238	0.51	ppm	97
26) Benzo[a]anthracene	19.538	228	150440	0.53	ppm	99
27) Chrysene	19.595	228	147654	0.48	ppm	96
29) Benzo[b]fluoranthene	21.201	252	185765	0.59	ppm	94
30) Benzo[k]fluoranthene	21.242	252	117254	0.44	ppm	95
31) Benzo[a]pyrene	21.655	252	145913	0.53	ppm	96
32) Indeno[1,2,3-cd]pyrene	23.211	276	158333	0.54	ppm	96
33) Dibenz[a,h]anthracene	23.253	278	131493	0.53	ppm	95
34) Benzo[g,h,i]perylene	23.611	276	136446	0.52	ppm	99
36) 1,4-Dioxane	2.388	88	19959	0.59	ppm	83
37) 1-Methylnaphthalene	9.970	142	90773	0.70	ppm	84
39) 4,6-dinitro-2-methylph...	13.109	198	47902	2.40	ppm	# 50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
Data File : 4m64041.D
Acq On : 14 Mar 2016 9:37 am
Operator : linseyk
Sample : cc2828-.5
Misc : op91969a,e4m2839
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 10:02:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
QLast Update : Mon Mar 14 09:02:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 1,2-Diphenylhydrazine	13.276	77	92618	0.51	ppm	87
41) n-nitrosodiphenylamine	13.228	169	80500	0.73	ppm	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

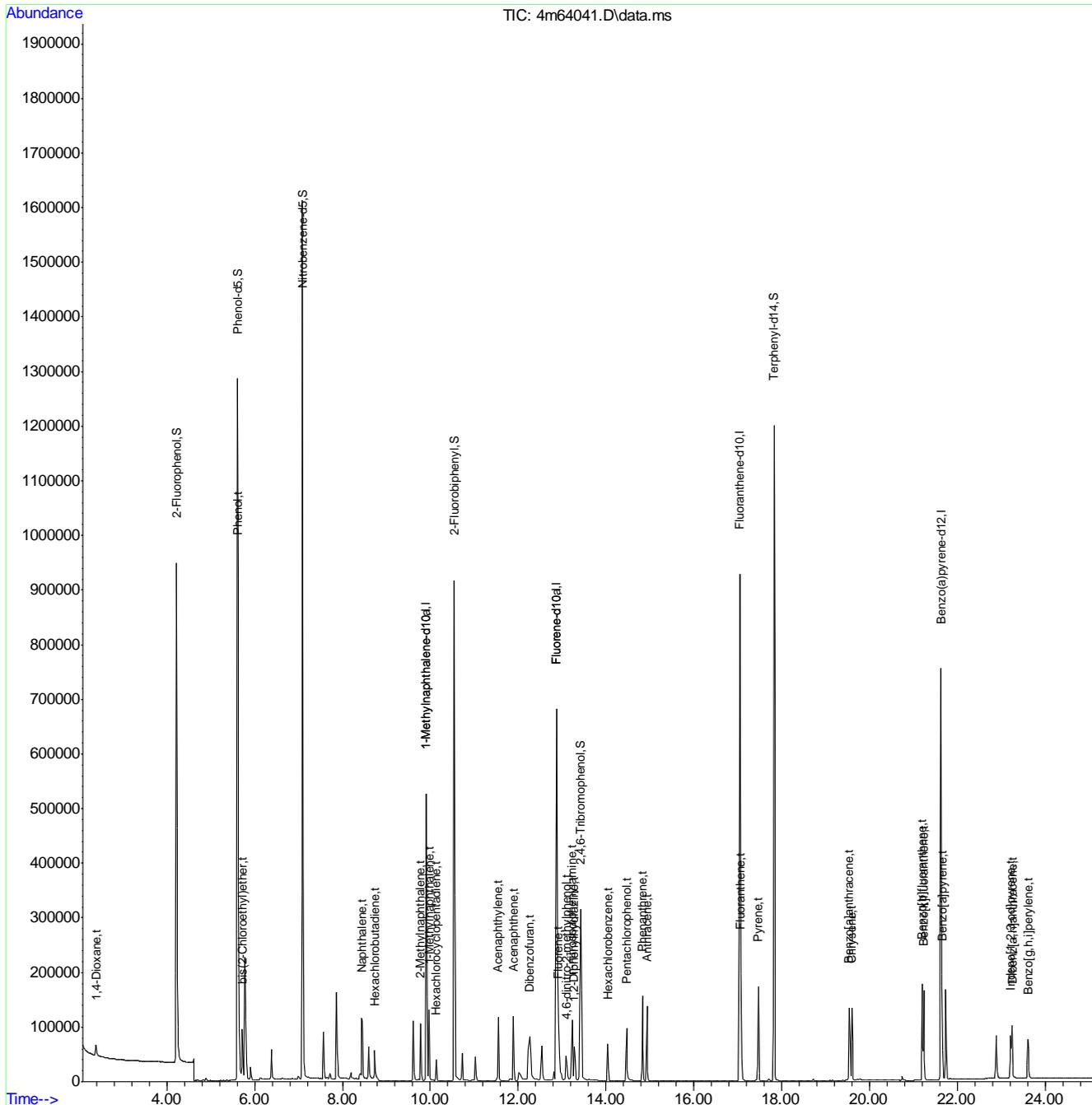
9.6.13

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E4M2839\
 Data File : 4m64041.D
 Acq On : 14 Mar 2016 9:37 am
 Operator : linseyk
 Sample : cc2828-.5
 Misc : op91969a,e4m2839
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 14 10:02:41 2016
 Quant Method : C:\MSDCHEM\1\METHODS\M4M2828SIM.M
 Quant Title : Semi Volatile GC/MS,zb-5 15m x .25mm x .50um
 QLast Update : Mon Mar 14 09:02:45 2016
 Response via : Initial Calibration



9.6-13
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102787.D Vial: 10
 Acq On : 24 Feb 2016 2:07 am Operator: sarad
 Sample : ic4514-100 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:43 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	126755	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	450907	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	254484	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	412235	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	351857	40.00	ppm	0.00
92) Perylene-d12	18.52	264	355480	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	126755	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	450907	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	254484	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	412235	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	351857	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	355480	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	126755	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	412235	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	351857	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	450907	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	254484	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	450907	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	126755	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	351857	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	351857	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	450907	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

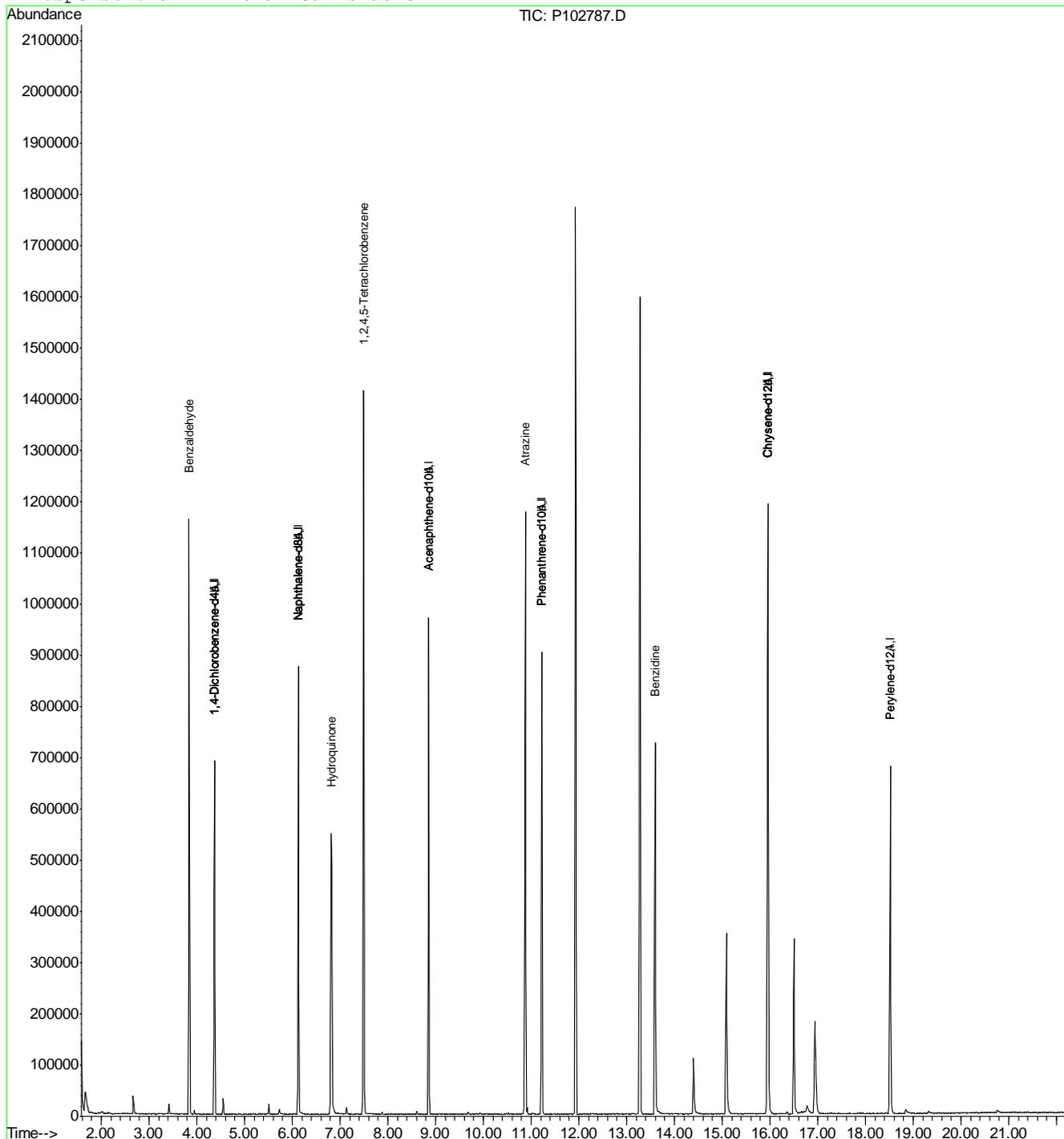
						Qvalue
160) Benzaldehyde	3.84	105	272885	71.62	ppm	99
162) Atrazine	10.88	200	197090	93.69	ppm	93
164) Benzidine	13.59	184	399210	67.45	ppm	99
166) Hydroquinone	6.81	110	439864	106.41	ppm	97
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	279294	79.97	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102787.D MP4513.M Wed Feb 24 14:34:21 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\PI02787.D Vial: 10
 Acq On : 24 Feb 2016 2:07 am Operator: sarad
 Sample : ic4514-100 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:34 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration



9.6.14
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102788.D Vial: 11
 Acq On : 24 Feb 2016 2:36 am Operator: sarad
 Sample : ic4514-80 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:07 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	119957	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	428470	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	236592	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	390766	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	333749	40.00	ppm	0.00
92) Perylene-d12	18.52	264	337313	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	119957	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	428470	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	236592	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	390766	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	333749	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	337313	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	119957	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	390766	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	333749	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	428470	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	236592	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	428470	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	119957	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	333749	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	333749	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	428470	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

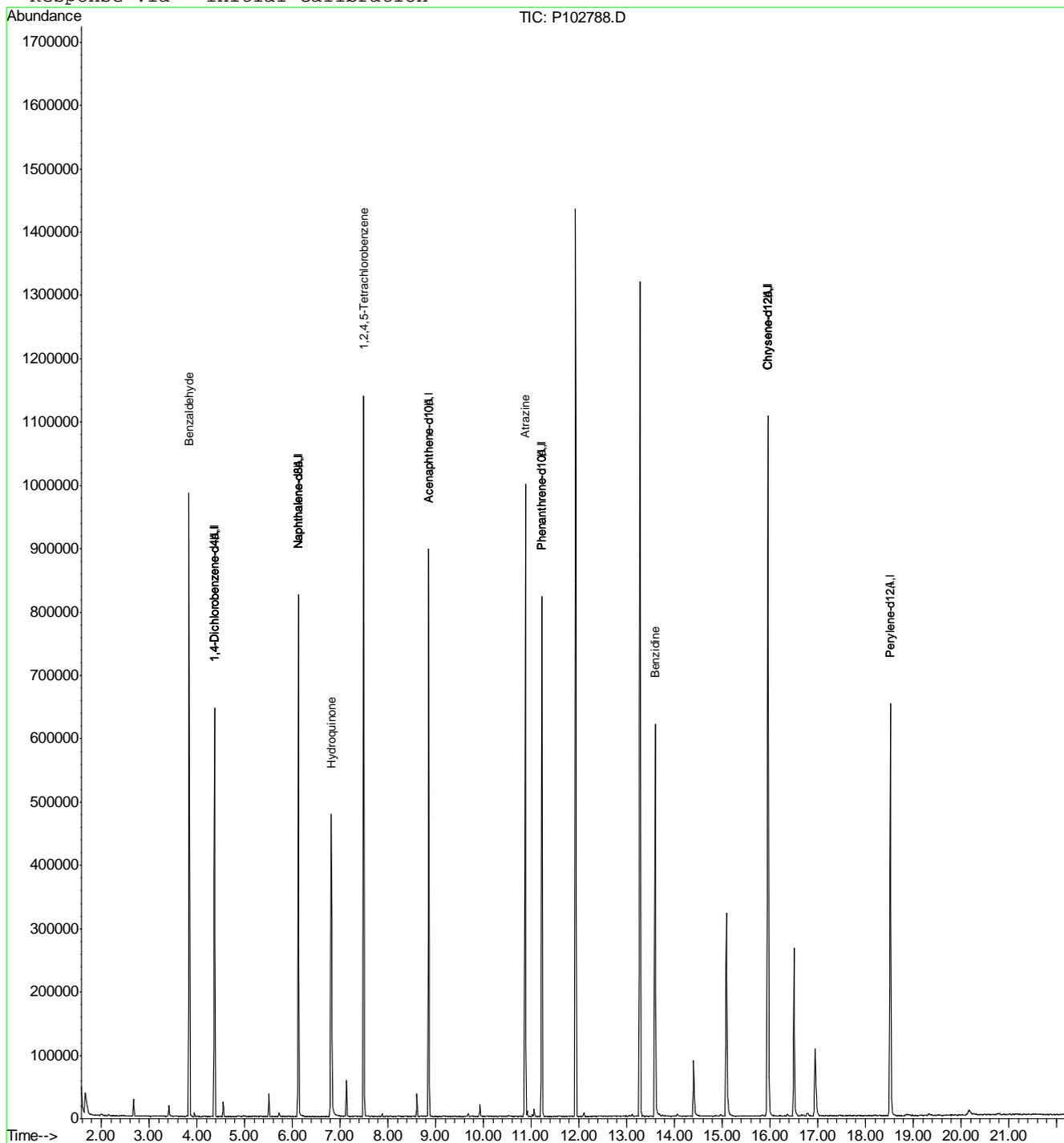
						Qvalue
160) Benzaldehyde	3.84	105	232196	64.39	ppm	99
162) Atrazine	10.88	200	152338	76.39	ppm	97
164) Benzidine	13.59	184	323040	57.54	ppm	99
166) Hydroquinone	6.81	110	341882	87.04	ppm	98
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	220907	68.03	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102788.D MP4513.M Wed Feb 24 14:35:08 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102788.D Vial: 11
Acq On : 24 Feb 2016 2:36 am Operator: sarad
Sample : ic4514-80 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:34 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102789.D Vial: 12
 Acq On : 24 Feb 2016 3:06 am Operator: sarad
 Sample : ic4514-10 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:10 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	136729	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	481198	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	270846	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	430378	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	374718	40.00	ppm	0.00
92) Perylene-d12	18.52	264	368292	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	136729	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	481198	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	270846	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	430378	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	374718	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	368292	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	136729	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	430378	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	374718	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	481198	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	270846	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	481198	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	136729	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	374718	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	374718	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	481198	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

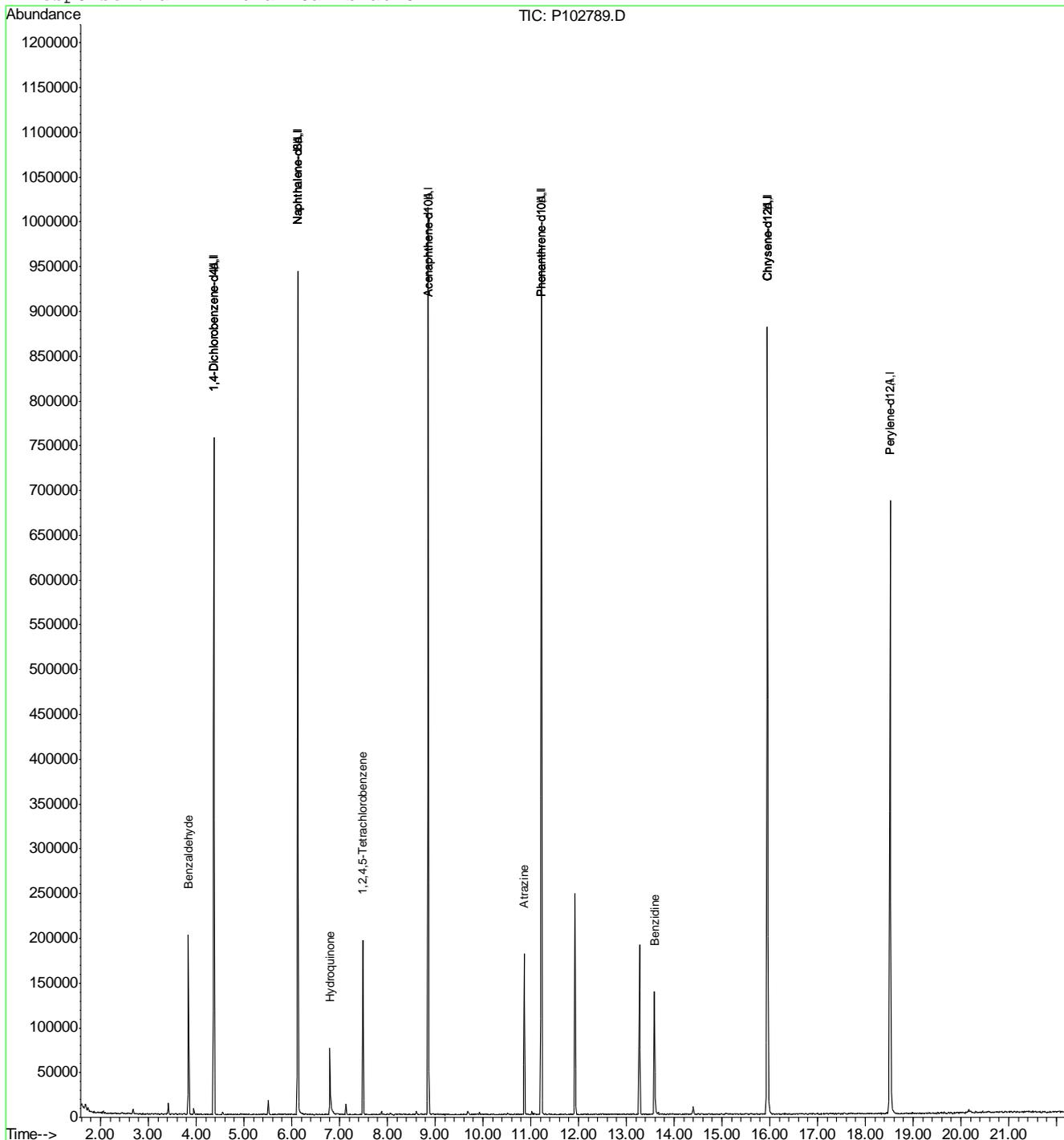
						Qvalue
160) Benzaldehyde	3.84	105	43208	10.51	ppm	98
162) Atrazine	10.86	200	22196	10.11	ppm	90
164) Benzidine	13.59	184	76244	12.10	ppm	99
166) Hydroquinone	6.80	110	41650	9.44	ppm	98
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	37002	9.95	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102789.D MP4513.M Wed Feb 24 14:35:39 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102789.D Vial: 12
 Acq On : 24 Feb 2016 3:06 am Operator: sarad
 Sample : ic4514-10 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:35 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration



9.6.16
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102790.D Vial: 13
 Acq On : 24 Feb 2016 3:35 am Operator: sarad
 Sample : ic4514-5 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:14 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	164954	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	563561	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	313072	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	511186	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	452088	40.00	ppm	0.00
92) Perylene-d12	18.52	264	443331	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	164954	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	563561	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	313072	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	511186	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	452088	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	443331	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	164954	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	511186	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	452088	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	563561	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	313072	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	563561	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	164954	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	452088	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	452088	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	563561	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

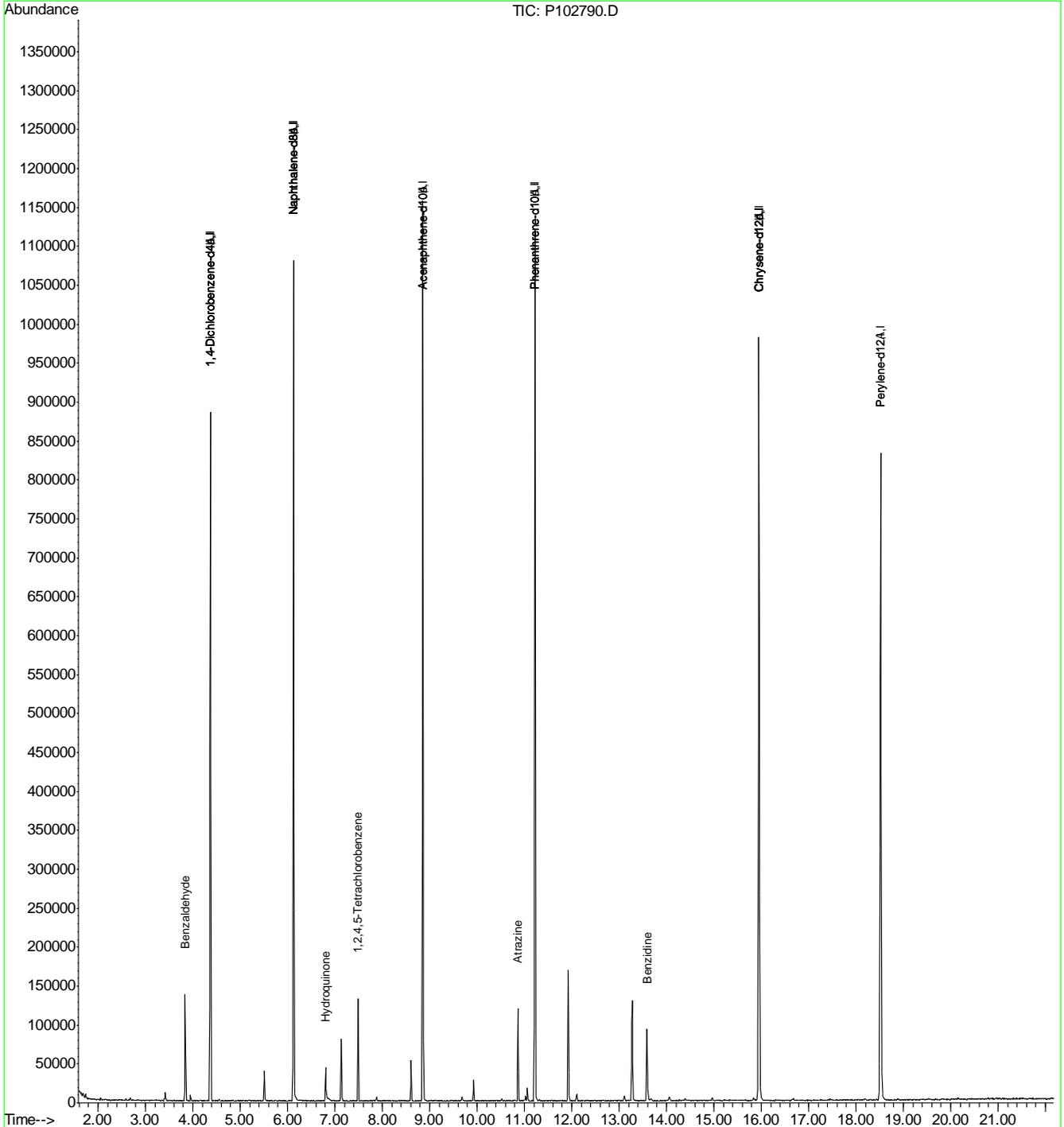
						Qvalue
160) Benzaldehyde	3.84	105	29655	5.98	ppm	99
162) Atrazine	10.86	200	14635	5.61	ppm	98
164) Benzidine	13.59	184	52465	6.90	ppm	98
166) Hydroquinone	6.80	110	26007	5.03	ppm	94
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	25271	5.88	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102790.D MP4513.M Wed Feb 24 14:36:07 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102790.D Vial: 13
Acq On : 24 Feb 2016 3:35 am Operator: sarad
Sample : ic4514-5 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:35 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102791.D Vial: 14
 Acq On : 24 Feb 2016 4:05 am Operator: sarad
 Sample : ic4514-2 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:19 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	157400	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	549331	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	307207	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	486864	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	411356	40.00	ppm	0.00
92) Perylene-d12	18.52	264	397949	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	157400	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	549331	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	307207	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	486864	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	411356	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	397949	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	157400	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	486864	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	411356	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	549331	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	307207	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	549331	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	157400	40.00	ppm	-0.09
176) Chrysene-d12c	15.95	240	411356	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	411356	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	549331	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

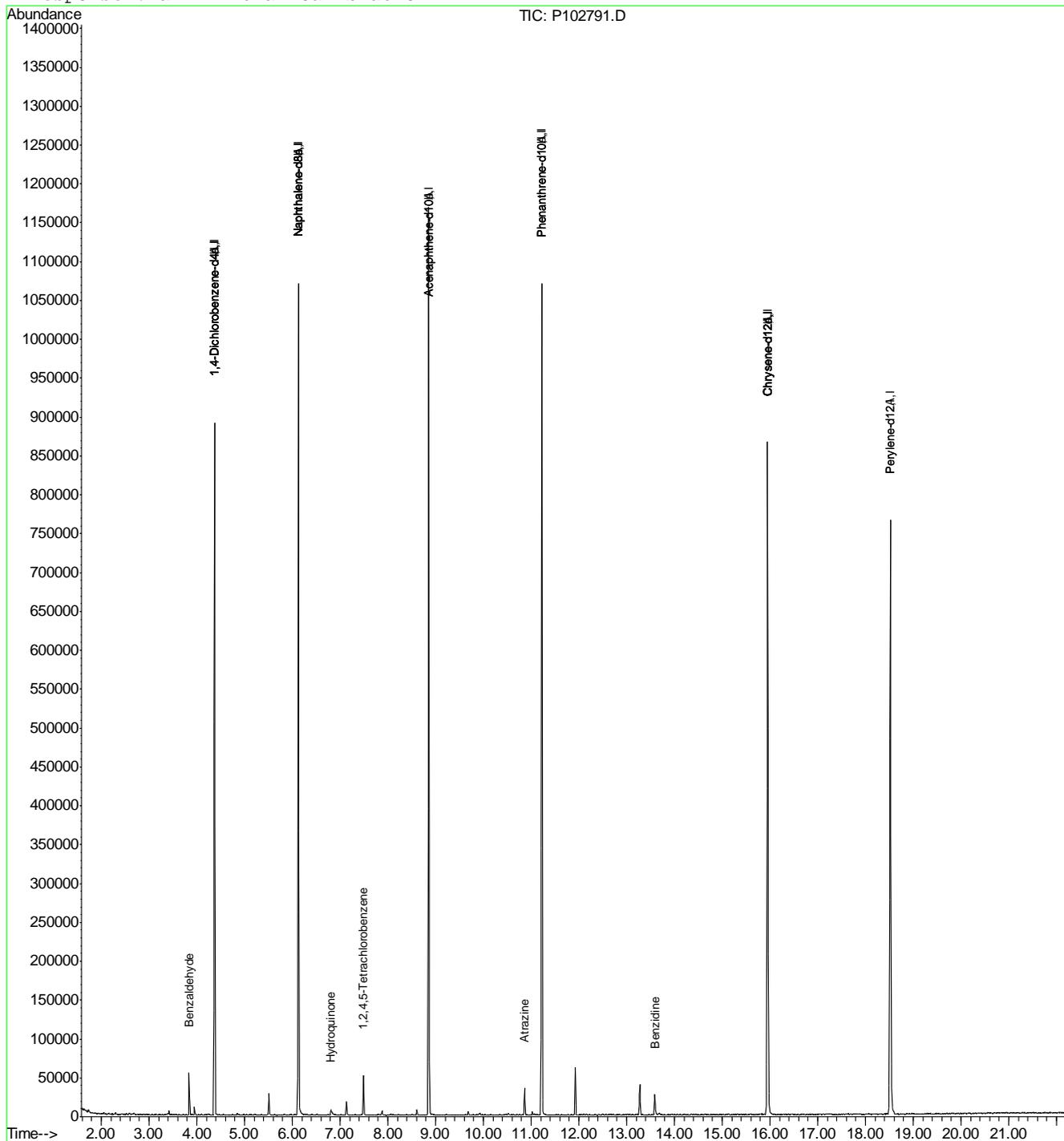
						Qvalue
160) Benzaldehyde	3.84	105	11747	2.48	ppm	96
162) Atrazine	10.86	200	4998	2.01	ppm	93
164) Benzidine	13.59	184	16474	2.38	ppm	99
166) Hydroquinone	6.81	110	7600	1.51	ppm	92
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	9946	2.36	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102791.D MP4513.M Wed Feb 24 14:36:37 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102791.D Vial: 14
Acq On : 24 Feb 2016 4:05 am Operator: sarad
Sample : ic4514-2 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:36 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102792.D Vial: 15
 Acq On : 24 Feb 2016 4:34 am Operator: sarad
 Sample : ic4514-1 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:21 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	135191	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	472196	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	264454	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	432389	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	378494	40.00	ppm	0.00
92) Perylene-d12	18.52	264	356091	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	135191	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	472196	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	264454	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	432389	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	378494	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	356091	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	135191	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	432389	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	378494	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	472196	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	264454	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	472196	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	135191	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	378441	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	378441	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	472196	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
160) Benzaldehyde	3.84	105	4552	1.12	ppm	97
162) Atrazine	10.86	200	2144	0.97	ppm	82
164) Benzidine	13.59	184	5187	0.81	ppm #	66
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	4065	1.12	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102792.D MP4513.M Wed Feb 24 14:37:07 2016

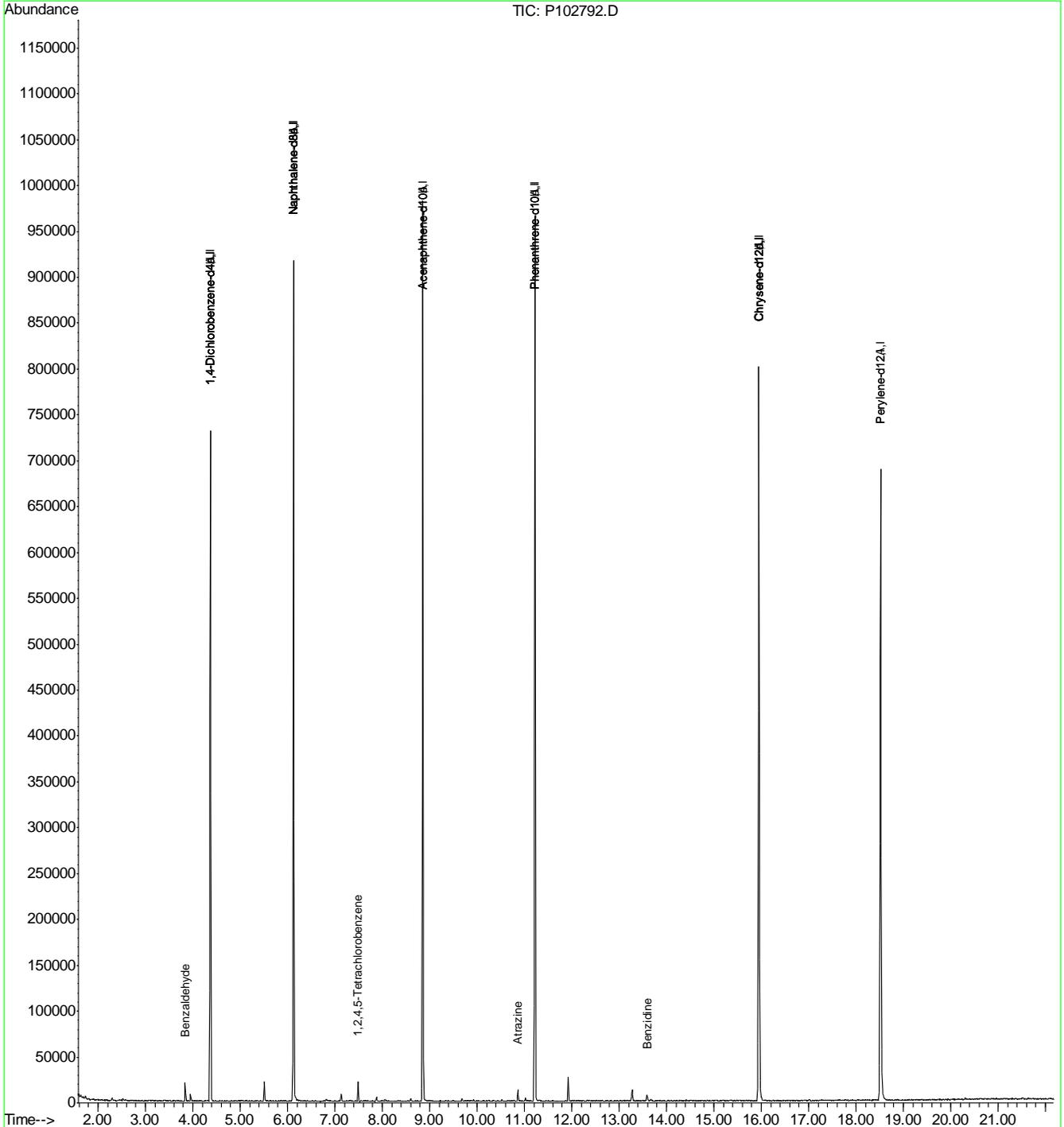
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102792.D
Acq On : 24 Feb 2016 4:34 am
Sample : ic4514-1
Misc : op91338,ep4514
MS Integration Params: rteint.p
Quant Time: Feb 24 14:37 2016

Vial: 15
Operator: sarad
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102793.D Vial: 16
 Acq On : 24 Feb 2016 5:04 am Operator: sarad
 Sample : ic4514-25 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:28 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	124747	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	436946	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	242658	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	388953	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	333803	40.00	ppm	0.00
92) Perylene-d12	18.51	264	324604	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	124747	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	436946	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	242658	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	388953	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	333803	40.00	ppm	0.00
155) Perylene-d12A	18.51	264	324604	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	124747	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	388953	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	333803	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	436946	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	242658	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	436946	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	124747	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	333803	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	333803	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	436946	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

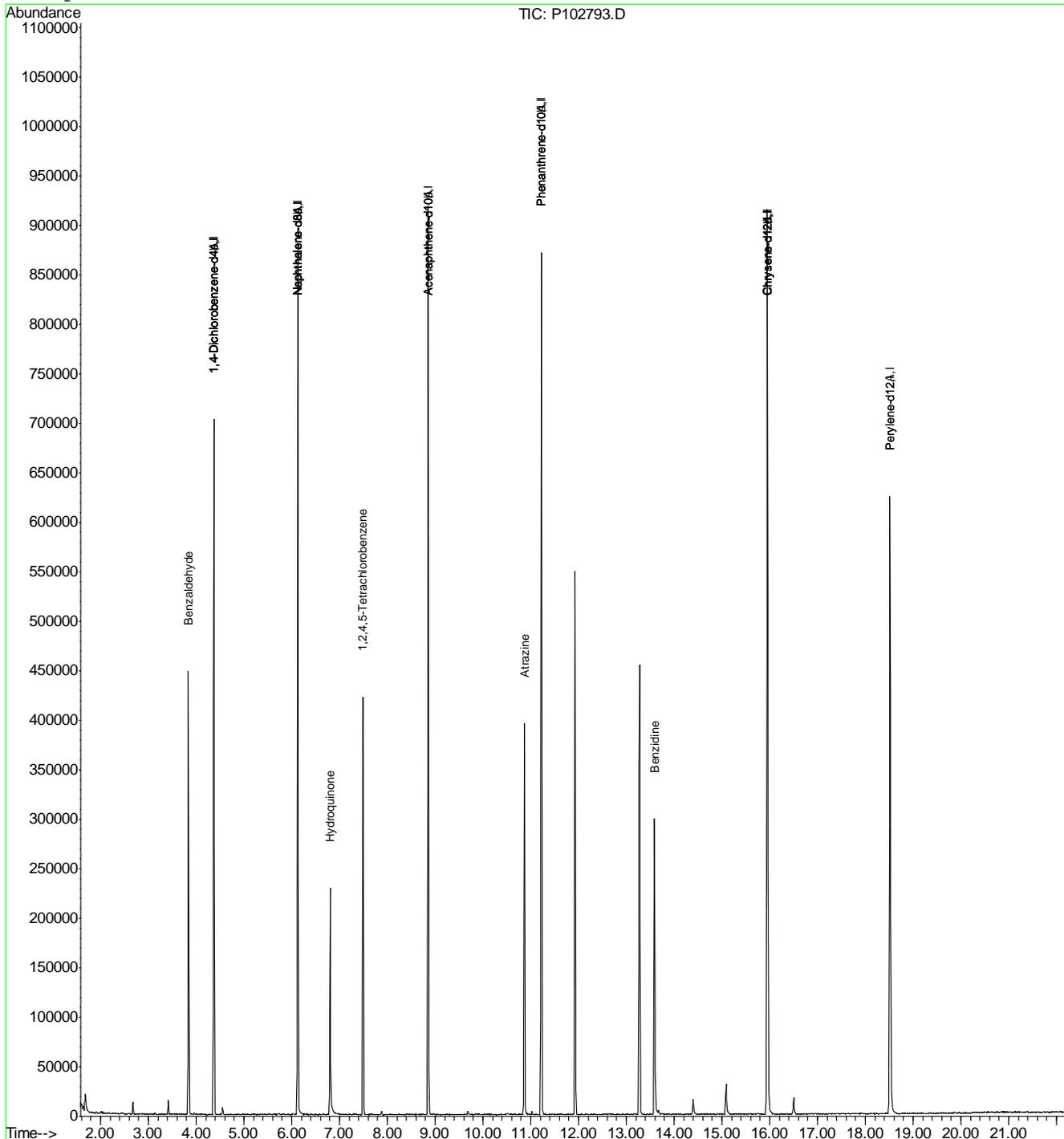
						Qvalue
160) Benzaldehyde	3.84	105	91859	24.50	ppm	96
162) Atrazine	10.87	200	50010	25.20	ppm	97
164) Benzidine	13.59	184	153732	27.38	ppm	99
166) Hydroquinone	6.80	110	108014	26.96	ppm	99
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	81204	24.38	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102793.D MP4513.M Wed Feb 24 14:37:38 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102793.D Vial: 16
 Acq On : 24 Feb 2016 5:04 am Operator: sarad
 Sample : ic4514-25 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration



9.6.20
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102794.D Vial: 17
 Acq On : 24 Feb 2016 5:33 am Operator: sarad
 Sample : icc4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:33:33 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	123738	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	444756	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	244838	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	386844	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	326980	40.00	ppm	0.00
92) Perylene-d12	18.52	264	322241	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	123738	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	444756	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	244838	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	386844	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	326980	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	322241	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	123738	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	386844	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	326980	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	444756	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	244838	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	444756	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	123738	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	326980	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	326980	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	444756	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

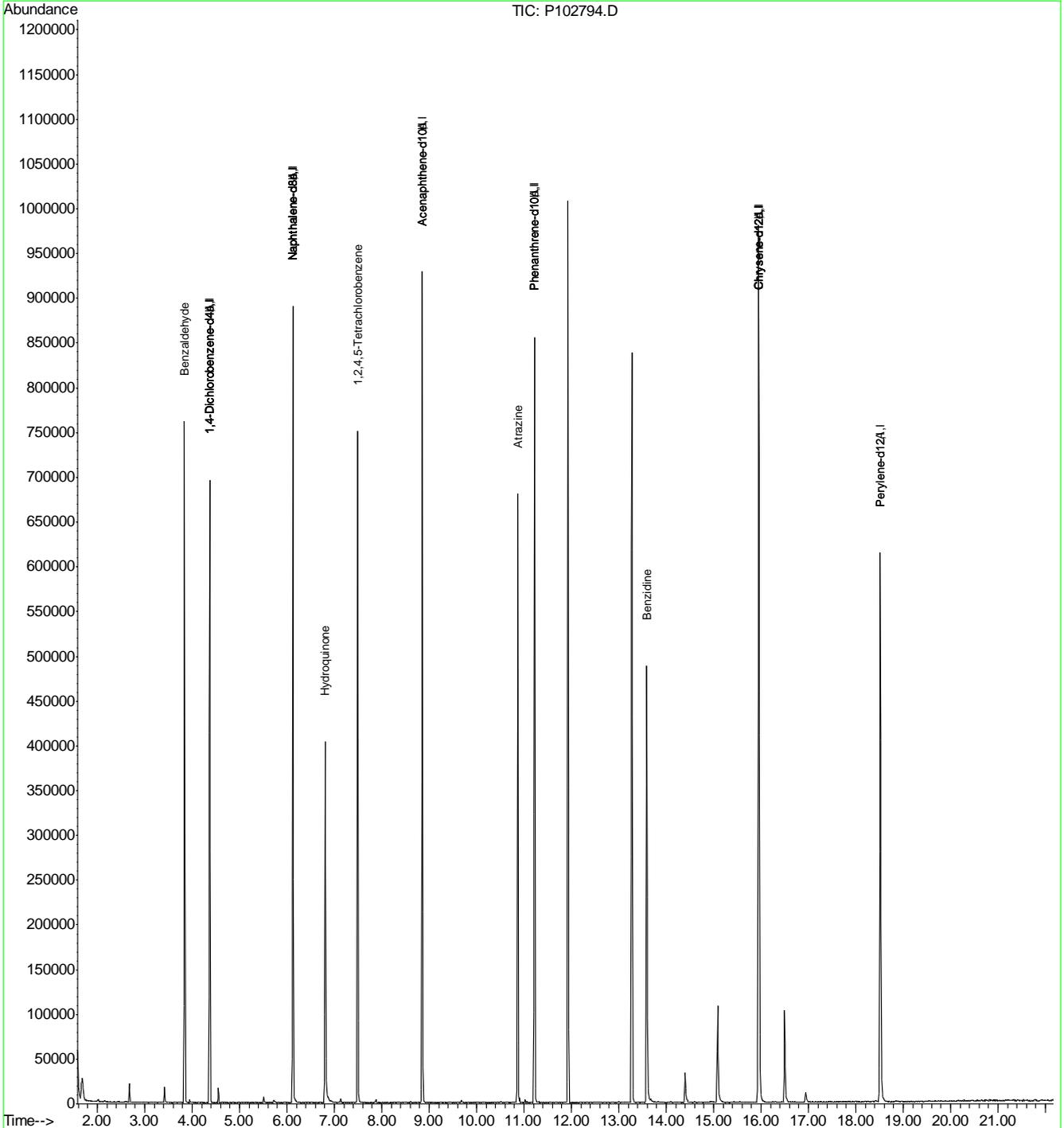
						Qvalue
160) Benzaldehyde	3.84	105	165508	44.50	ppm	100
162) Atrazine	10.88	200	97727	49.51	ppm	100
164) Benzidine	13.59	184	251988	45.82	ppm	100
166) Hydroquinone	6.81	110	216907	53.20	ppm	100
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	151776	45.17	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102794.D MP4513.M Wed Feb 24 14:38:12 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102794.D Vial: 17
 Acq On : 24 Feb 2016 5:33 am Operator: sarad
 Sample : icc4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 14:32:58 2016
 Response via : Initial Calibration



9.6.21
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D Vial: 21
 Acq On : 24 Feb 2016 7:31 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 12:54:33 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 12:45:32 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	117275	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	407577	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	231457	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	379681	40.00	ppm	0.00
83) Chrysene-d12	15.96	240	296388	40.00	ppm	0.00
92) Perylene-d12	18.52	264	300664	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	117275	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	407577	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	231457	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	379681	40.00	ppm	0.00
147) Chrysene-d12A	15.96	240	296388	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	300664	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	117275	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	379681	40.00	ppm	0.00
163) Chrysene-d12b	15.96	240	296388	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	407577	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	231457	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	407577	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	117275	40.00	ppm	-0.08
176) Chrysene-d12c	15.96	240	296388	40.00	ppm	0.00
178) Chrysene-d12d	15.96	240	296388	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	407577	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

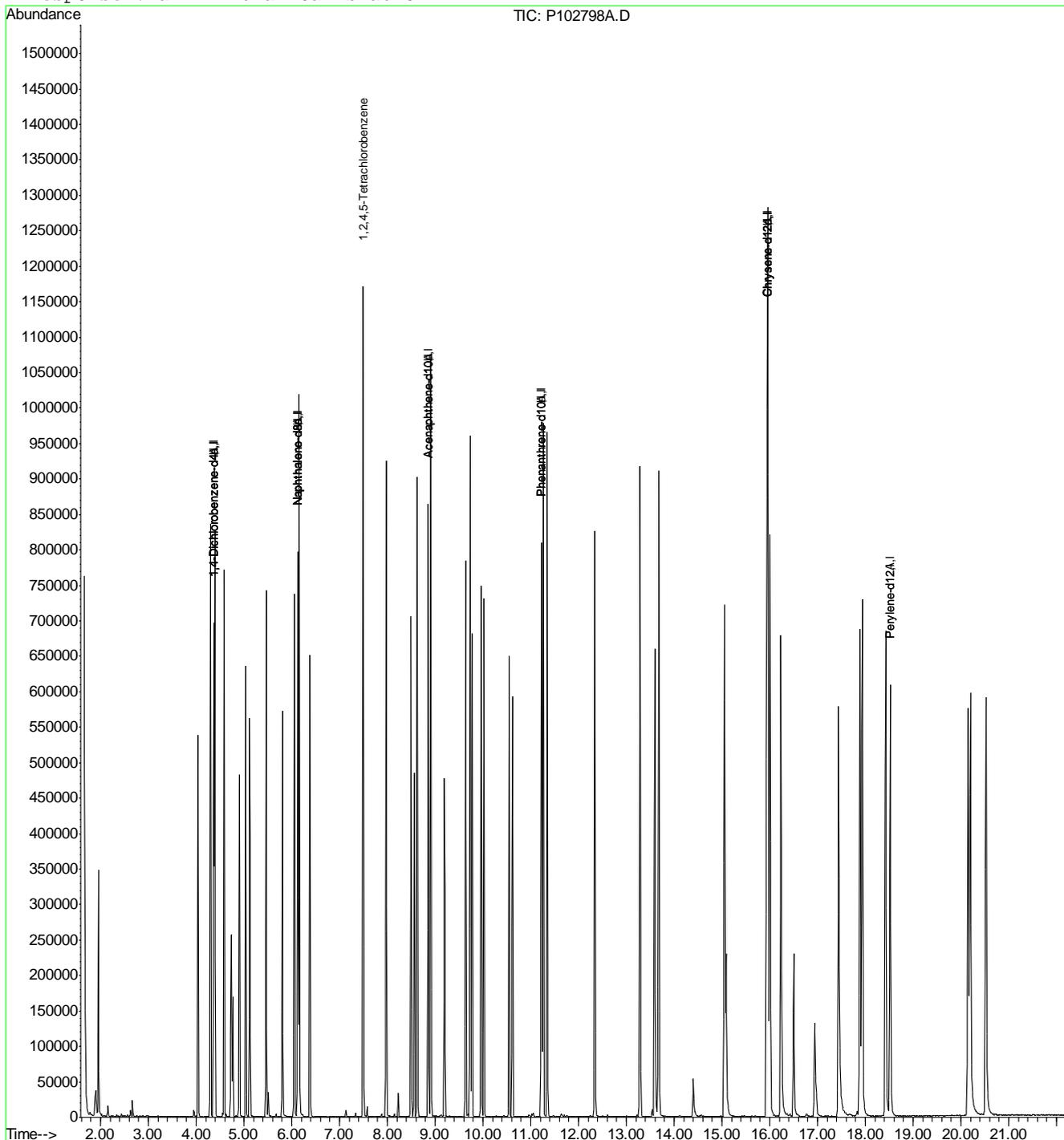
					Qvalue
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	147147	46.32	ppm 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102798A.D MP4513.M Thu Feb 25 16:21:01 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D Vial: 21
 Acq On : 24 Feb 2016 7:31 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 25 16:19 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration



9.6.22
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D Vial: 22
 Acq On : 24 Feb 2016 8:00 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 12:59:11 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 12:45:32 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	117905	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	432668	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	239323	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	363483	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	338502	40.00	ppm	0.00
92) Perylene-d12	18.51	264	316787	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	117905	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	432668	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	239323	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	363483	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	338502	40.00	ppm	0.00
155) Perylene-d12A	18.51	264	316787	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	117905	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	363483	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	338502	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	432668	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	239323	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	432668	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	117905	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	338502	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	338502	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	432668	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

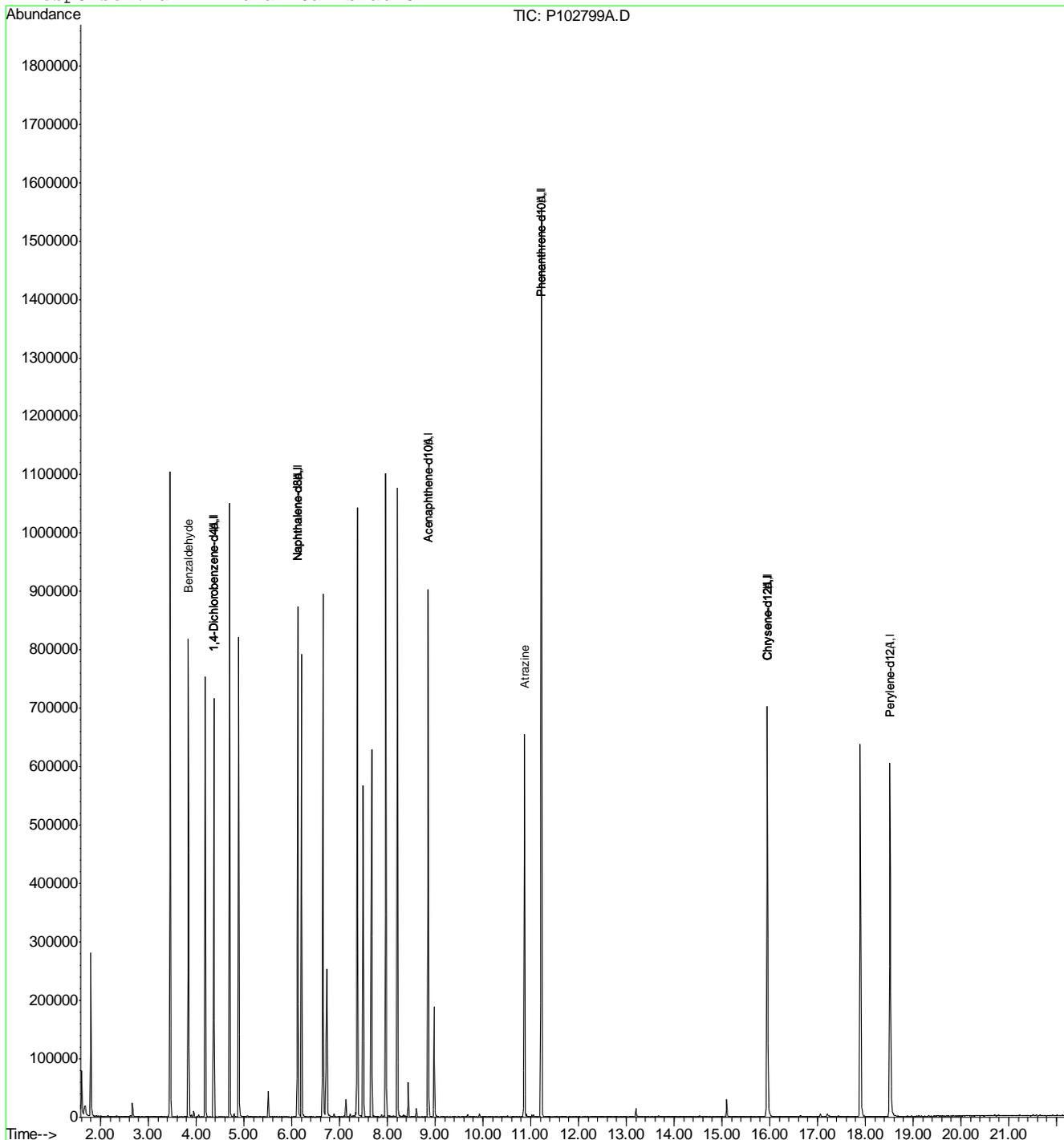
						Qvalue
160) Benzaldehyde	3.84	105	170305	48.05	ppm	97
162) Atrazine	10.88	200	91512	49.34	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102799A.D MP4513.M Thu Feb 25 16:21:13 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D Vial: 22
 Acq On : 24 Feb 2016 8:00 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 25 16:20 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration



9.6.23
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D Vial: 23
 Acq On : 24 Feb 2016 8:29 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 13:00:48 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 12:45:32 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	131165	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	459959	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	224297	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	391280	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	349495	40.00	ppm	0.00
92) Perylene-d12	18.52	264	345730	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	131165	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	459959	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	224297	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	391280	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	349495	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	345730	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	131165	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	391280	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	349495	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	459959	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	224297	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	459959	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	131165	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	349495	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	349495	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	459959	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
166) Hydroquinone	6.81	110	221965	52.64	ppm	98

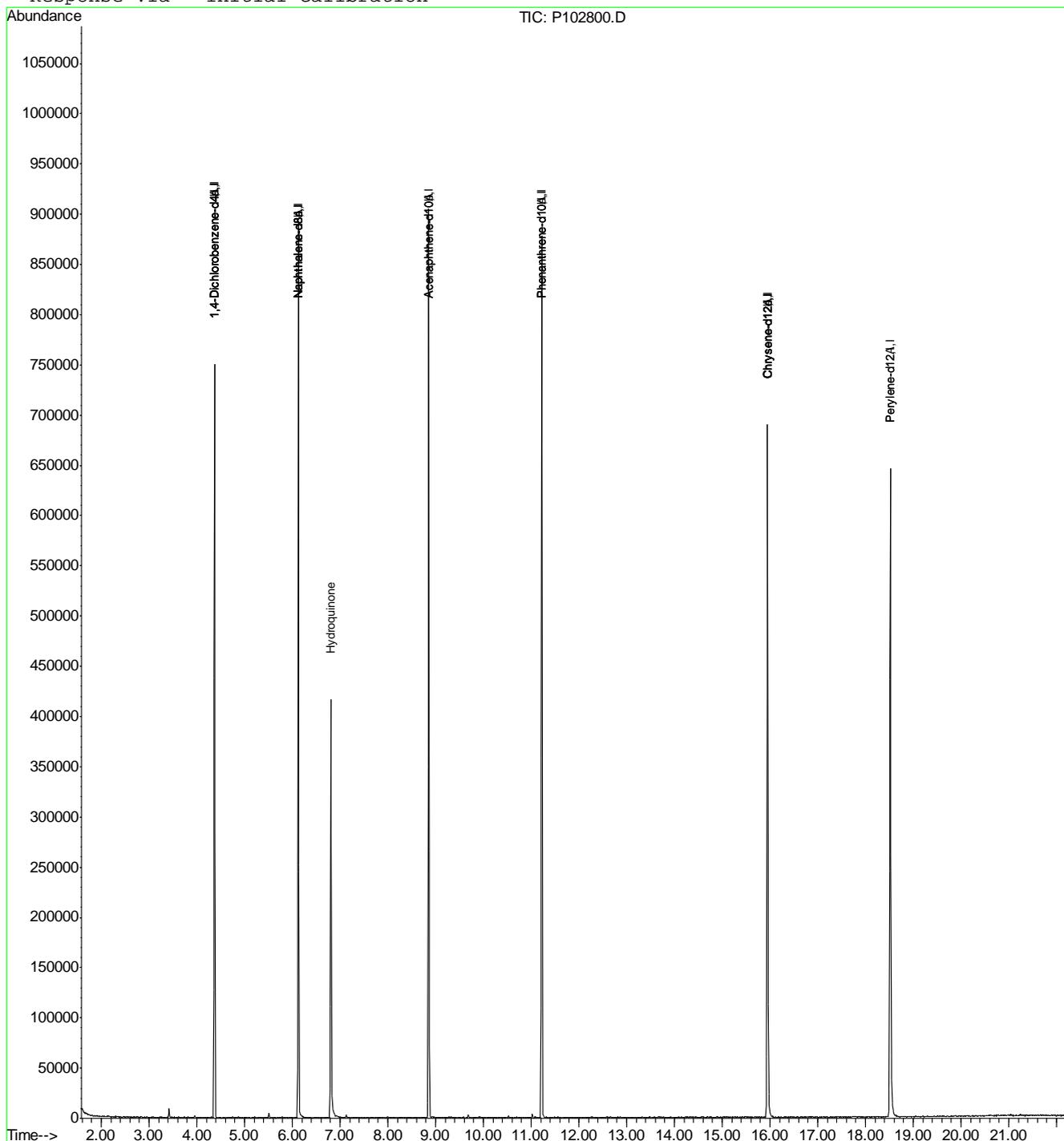
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102800.D MP4513.M Wed Feb 24 13:01:22 2016

9.6.24
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D Vial: 23
 Acq On : 24 Feb 2016 8:29 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 13:01 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 12:45:32 2016
 Response via : Initial Calibration



9.6.24
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D Vial: 24
 Acq On : 24 Feb 2016 8:58 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 13:01:35 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 12:45:32 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	151289	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	527124	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	254350	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	443644	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	368888	40.00	ppm	0.00
92) Perylene-d12	18.52	264	382458	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	151289	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	527124	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	254350	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	443644	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	368888	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	382458	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	151289	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	443644	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	368888	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	527124	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	254350	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	527124	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	151289	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	368888	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	368888	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	527124	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

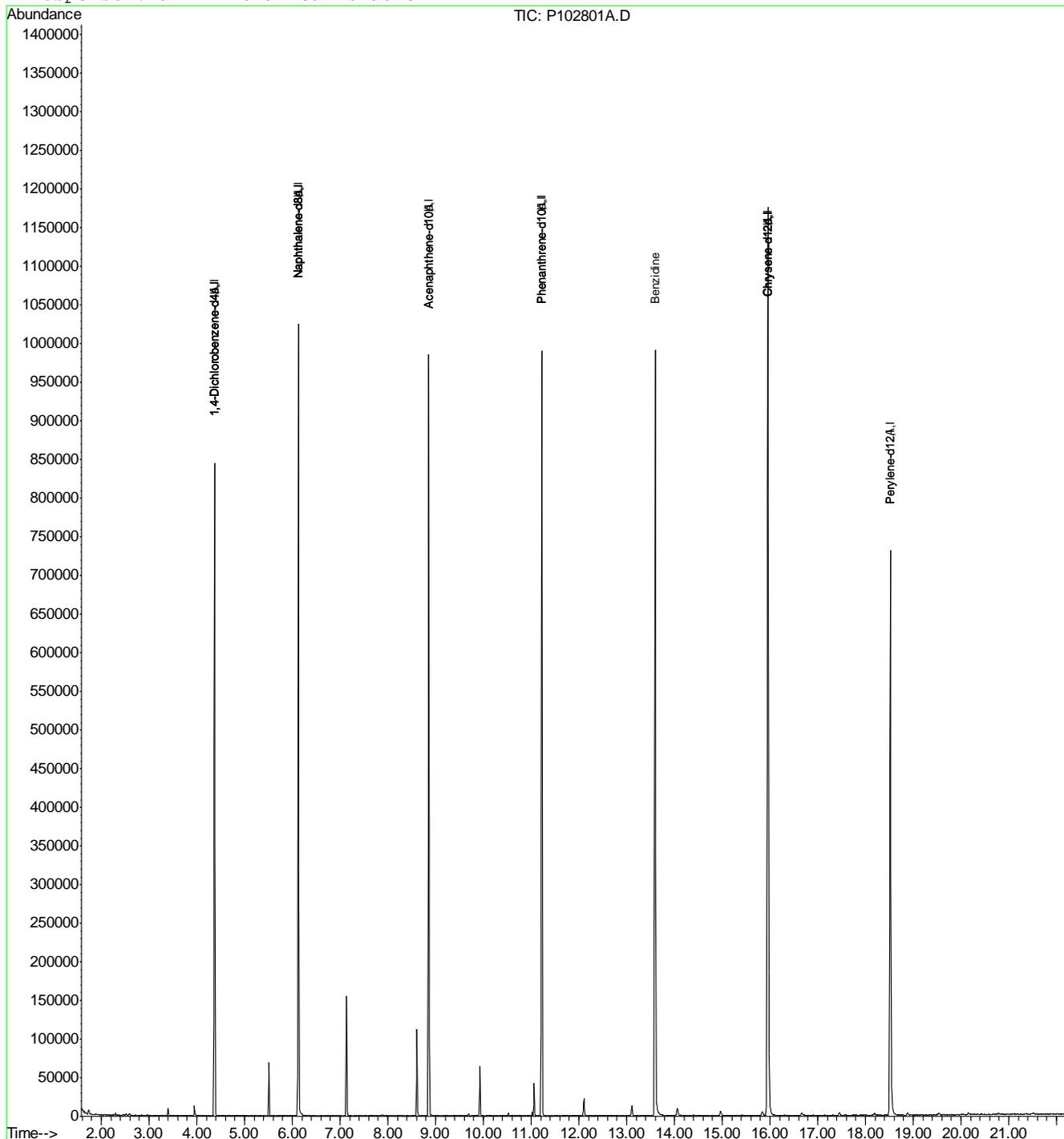
						Qvalue
164) Benzidine	13.59	184	502401	77.37	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102801A.D MP4513.M Thu Feb 25 16:22:00 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D Vial: 24
 Acq On : 24 Feb 2016 8:58 am Operator: sarad
 Sample : icv4514-50 Inst : MSP
 Misc : op91338,ep4514 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 25 16:21 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration



9.6.25
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:37:10 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	116750	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	416496	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	248090	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	396621	40.00	ppm	0.00
83) Chrysene-d12	15.96	240	341673	40.00	ppm	0.00
92) Perylene-d12	18.53	264	325278	40.00	ppm	0.01
102) 1,4-Dichlorobenzene-d4A	4.37	152	116750	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	416496	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	248090	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	396621	40.00	ppm	0.00
147) Chrysene-d12A	15.96	240	341673	40.00	ppm	0.00
155) Perylene-d12A	18.53	264	325278	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	116750	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	396621	40.00	ppm	0.01
163) Chrysene-d12b	15.96	240	341673	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	416496	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	248090	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	416496	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	116750	40.00	ppm	-0.08
176) Chrysene-d12c	15.96	240	341673	40.00	ppm	0.00
178) Chrysene-d12d	15.96	240	341673	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	416496	40.00	ppm	0.17

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
103) 2-Picoline	2.48	93	454085	100.00	ppm	99
104) Pentachloroethane	4.03	167	152640	100.00	ppm	80
105) Methyl methanesulfonate	2.80	80	223199	100.00	ppm	79
106) N-Nitrosodiethylamine	3.17	102	194100	100.00	ppm	95
107) N-Nitrosomethylethylamine	2.55	42	152430	100.00	ppm	82
108) Ethyl methanesulfonate	3.47	79	296942	100.00	ppm	98
109) N-Nitrosopyrrolidine	4.88	41	112862	100.00	ppm	92
110) N-Nitrosomorpholine	4.92	56	142859	100.00	ppm	87
111) o-Toluidine	4.96	106	474056	99.75	ppm	# 22
113) O,O,O-Triethyl phosphoroth	5.78	198	150776	100.00	ppm	94
114) N-Nitrosopiperidine	5.34	42	188858	188.76	ppm	91
115) A,A-Dimethylphenethylamine	6.63	58	819642m	99.96	ppm	

(#) = qualifier out of range (m) = manual integration

P102803.D MP4513.M Wed Feb 24 15:47:49 2016

9.6.26
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:37:10 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	201124	100.00	ppm	98
117) N-Nitrosodi-n-butylamine	6.81	84	243273	100.00	ppm	93
118) p-Phenylenediamine	6.79	108	195109m	100.20	ppm	
119) Safrole	7.12	162	249704	100.00	ppm	87
120) Isosafrole	7.94	162	84709	100.00	ppm	# 48
122) Thionazin	9.77	143	90463	100.00	ppm	98
123) Tetraethyl dithiopyrophosp	10.30	322	82458	100.00	ppm	100
124) Phorate	10.48	75	388339	100.00	ppm	100
125) Phenacetin	10.53	108	372583	100.00	ppm	99
126) 1,4-Naphthoquinone	8.26	158	173864	100.00	ppm	95
127) m-Dinitrobenzene	8.51	168	111217	100.00	ppm	85
128) Pentachlorobenzene	9.14	250	230995	100.00	ppm	97
129) 2-Naphthylamine	9.45	143	566878	100.00	ppm	91
130) 1-Naphthylamine	9.32	143	505272	100.00	ppm	95
131) 5-Nitro-o-toluidine	9.79	152	206115	100.00	ppm	97
133) Disulfoton	11.32	88	320318	100.00	ppm	95
134) Dinoseb	11.31	211	155924	100.00	ppm	96
135) Dimethoate	10.73	87	272430	100.00	ppm	76
136) 4-Aminobiphenyl	10.98	169	596338	100.00	ppm	97
137) Methyl parathion	11.93	125	193893	100.00	ppm	85
138) Parathion	12.62	109	138493	100.00	ppm	94
139) Diphenylamine	9.98	169	883019	100.00	ppm	98
140) Isodrin	13.04	193	109215	100.00	ppm	86
141) Diallate	10.47	86	214111	100.00	ppm	79
142) Pentachloronitrobenzene	10.99	295	58950	200.00	ppm	85
143) Pronamide	11.14	173	291956	100.00	ppm	97
144) 4-Nitroquinoline 1-oxide	12.61	190	420849	400.00	ppm	# 65
145) Methapyriline	12.88	58	220827	100.00	ppm	86
146) sym-Trinitrobenzene	10.42	213	62649	100.00	ppm	# 28
148) Aramite	14.26	185	59704	200.00	ppm	94
149) p-(Dimethylamine)azobenzen	14.34	120	347425	100.00	ppm	92
150) Kepone	14.97	272	187811m	1550.68	ppm	
151) Famphur	14.93	218	793706	600.00	ppm	93
152) 2-Acetylaminofluorene	15.44	181	441605	100.00	ppm	95
153) 3,3'-Dimethylbenzidine	14.98	212	96460	100.00	ppm	98
154) Chlorobenzilate	14.46	251	259931	100.00	ppm	97
156) 4,4-Methylene-bis-(2-chlor	16.00	266	79201	100.00	ppm	98
157) Hexachlorophene	18.31	196	339206	500.00	ppm	# 97
158) 3-Methylcholanthrene	19.04	252	180596	100.00	ppm	# 77

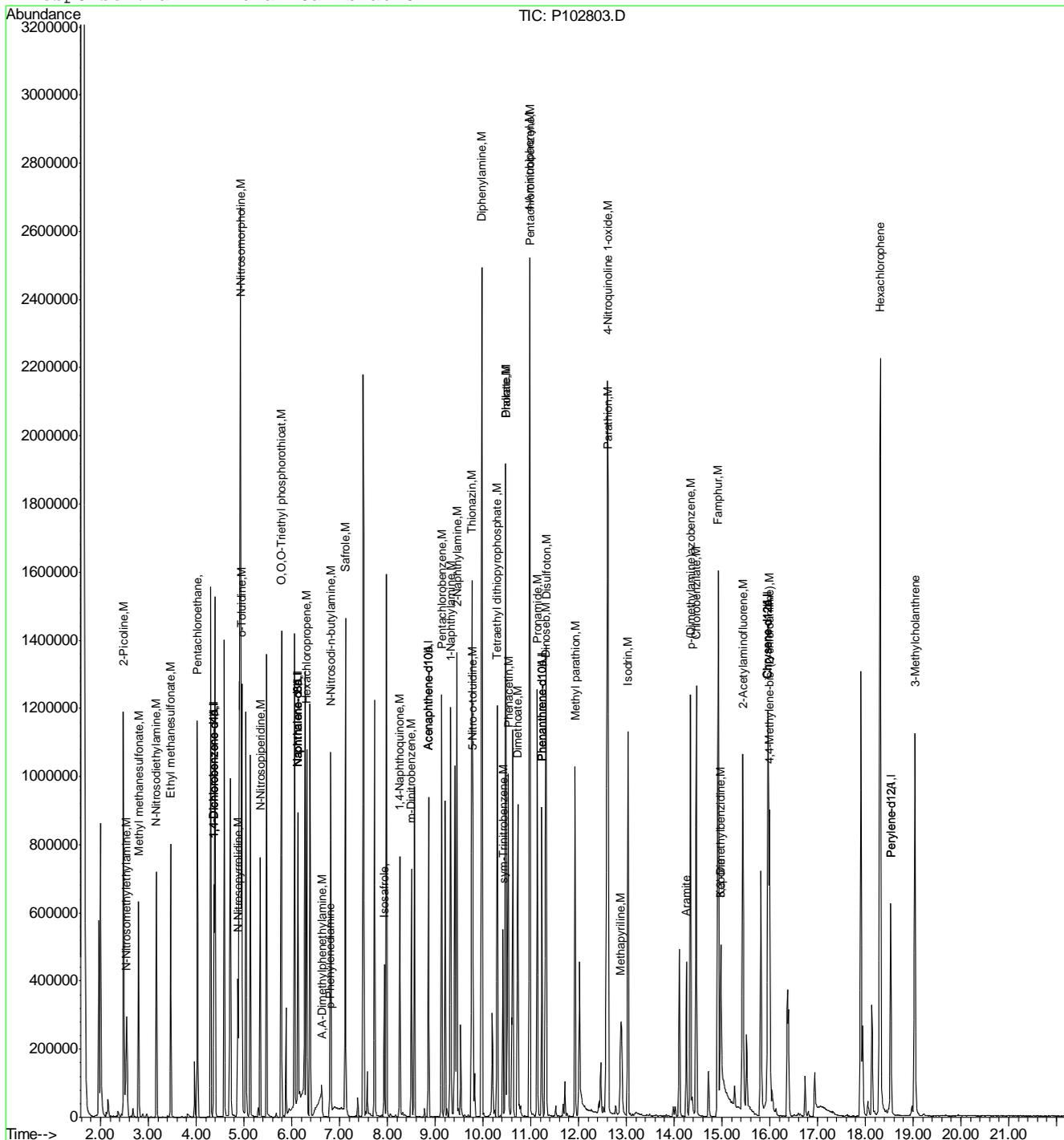
9.6.26
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102803.D MP4513.M Wed Feb 24 15:47:49 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:47 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration



9.6-26
9

Manual Integration Approval Summary

Sample Number: EP4515-IC4515 Method: SW846 8270D
Lab FileID: P102803.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 10:15 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.63	Split peak
p-Phenylenediamine	106-50-3		6.79	Split peak
Kepone	143-50-0		14.97	Split peak

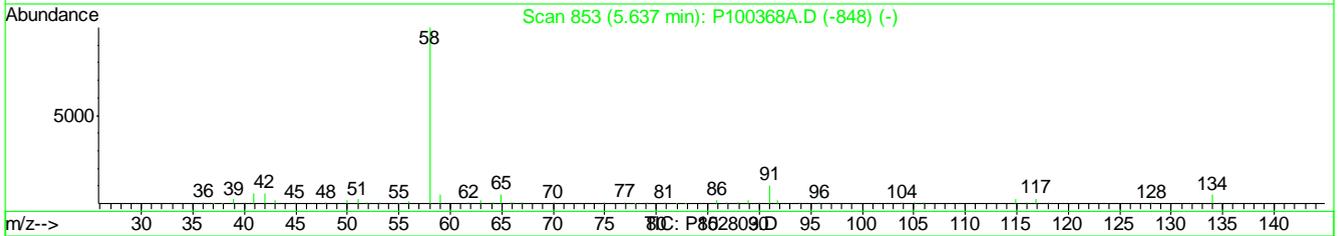
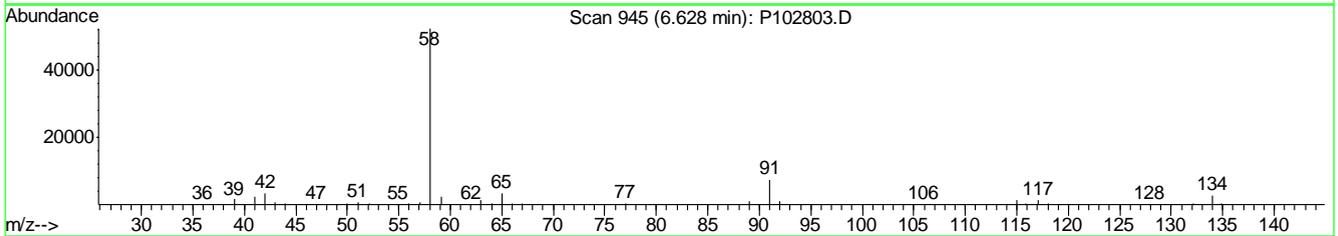
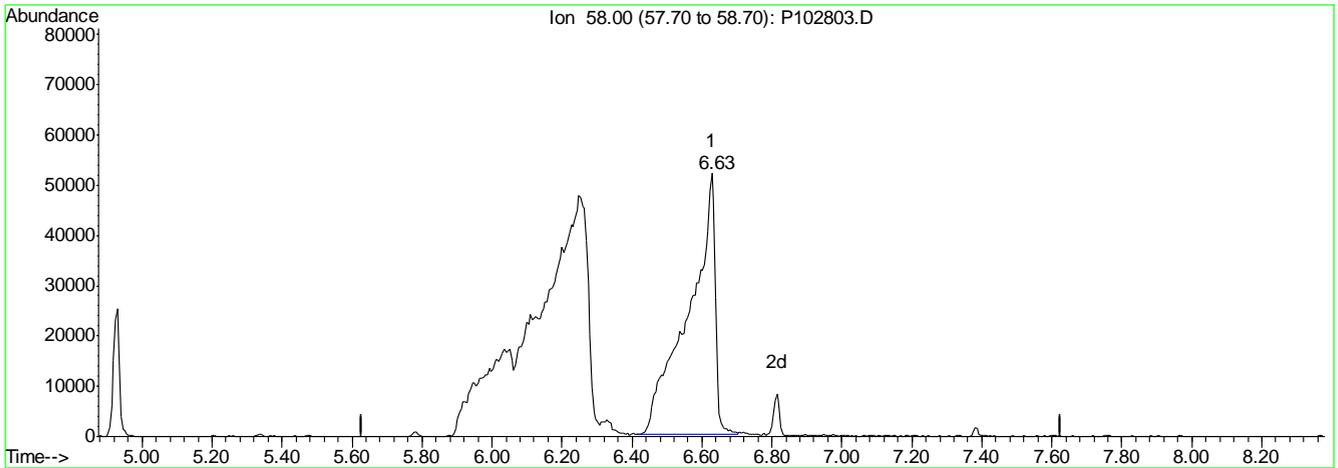
9.6.26.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:37 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.63min 33.20ppm

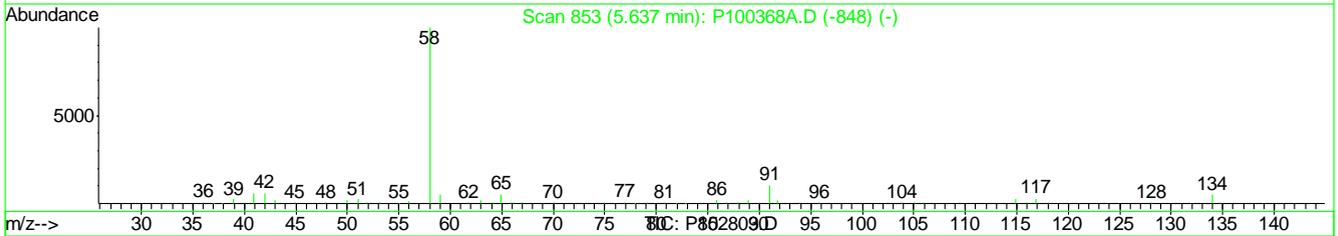
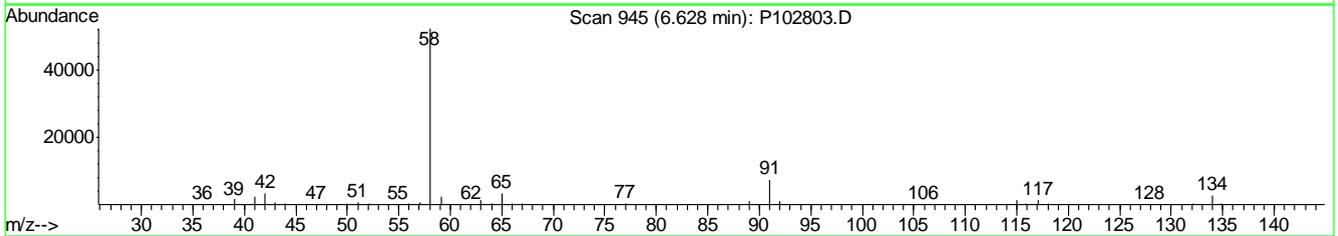
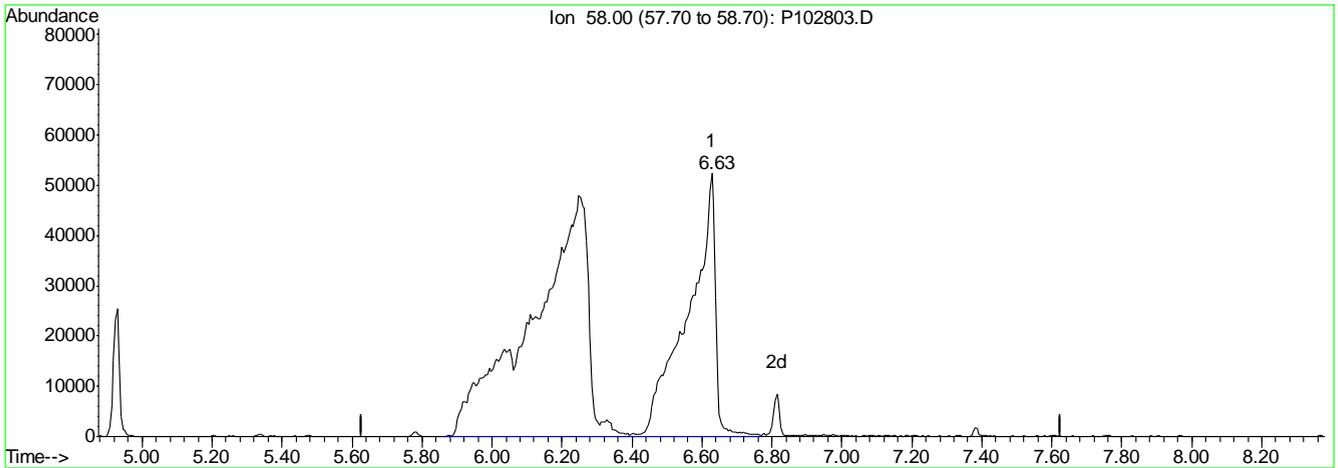
response 272205

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:38 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.63min 99.96ppm m

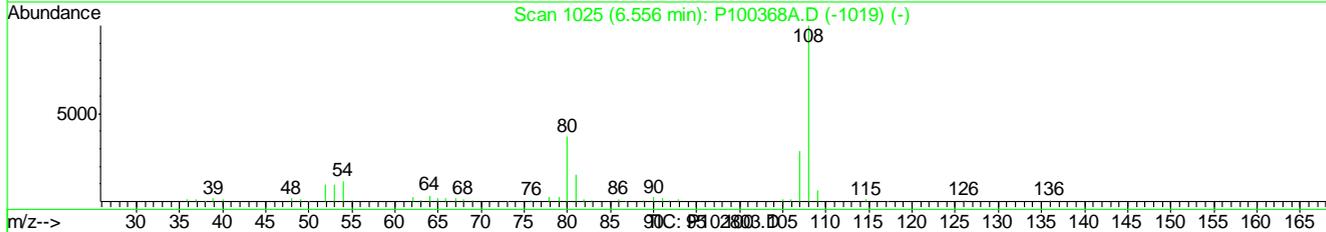
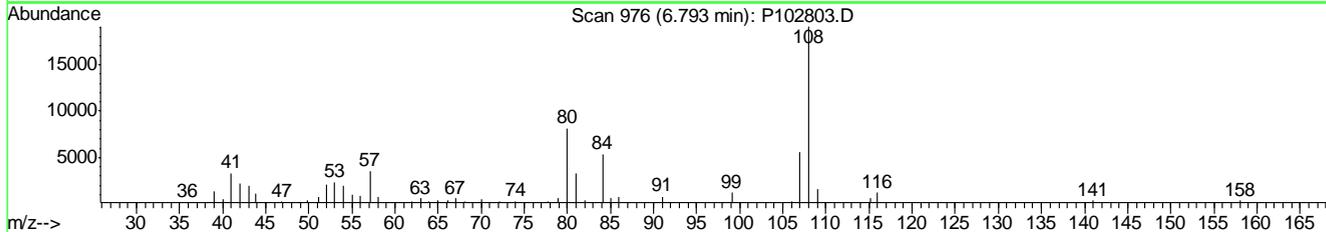
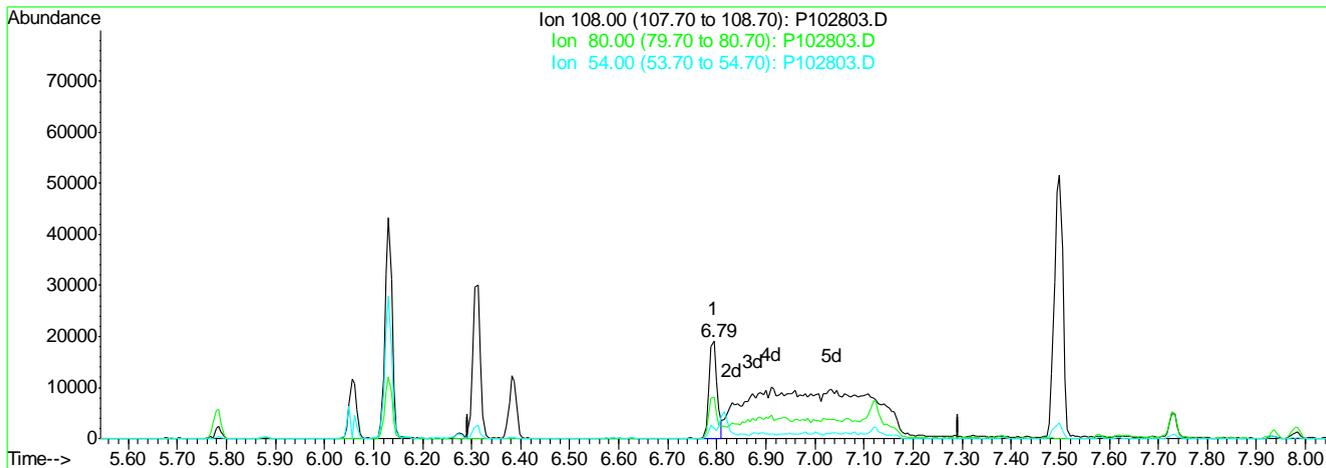
response 819642

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:38 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 11.48ppm

response 22348

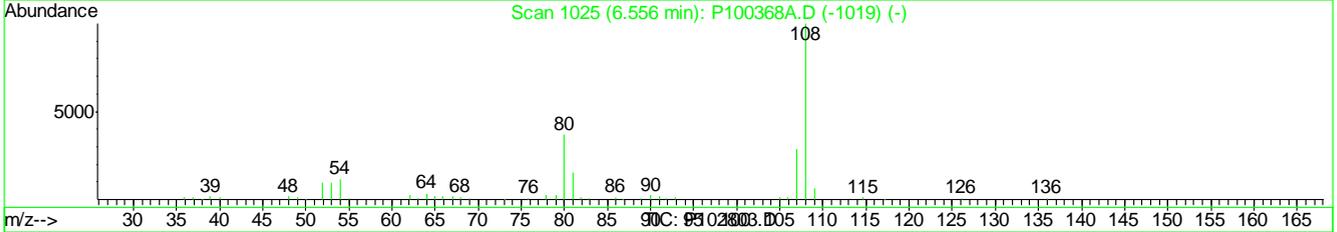
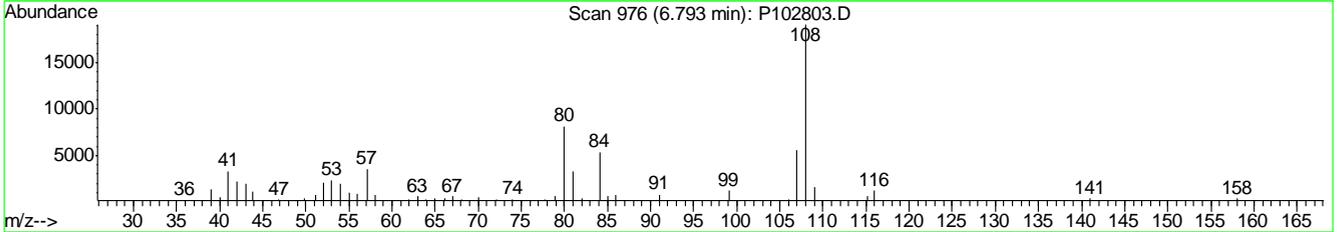
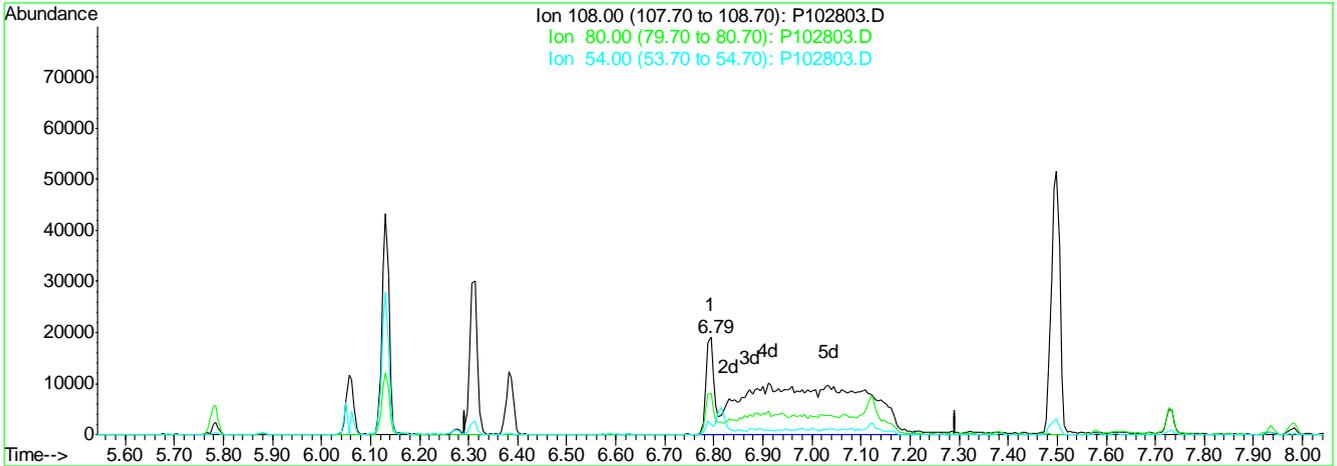
Ion	Exp%	Act%
108.00	100	100
80.00	19.80	40.06#
54.00	1.80	0.00#
0.00	0.00	0.00

9.6.26.4
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:38 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 100.20ppm m

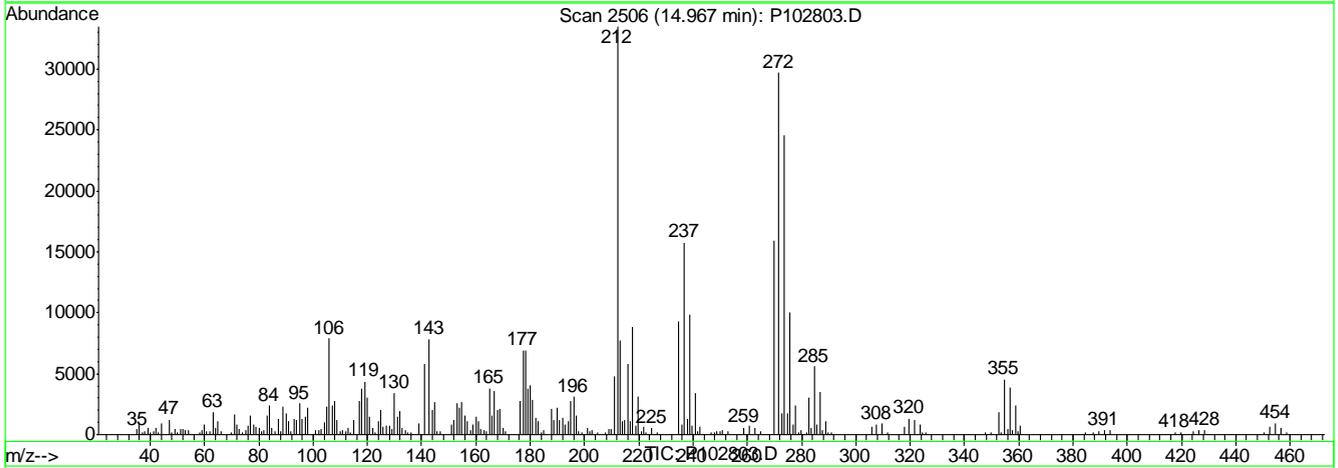
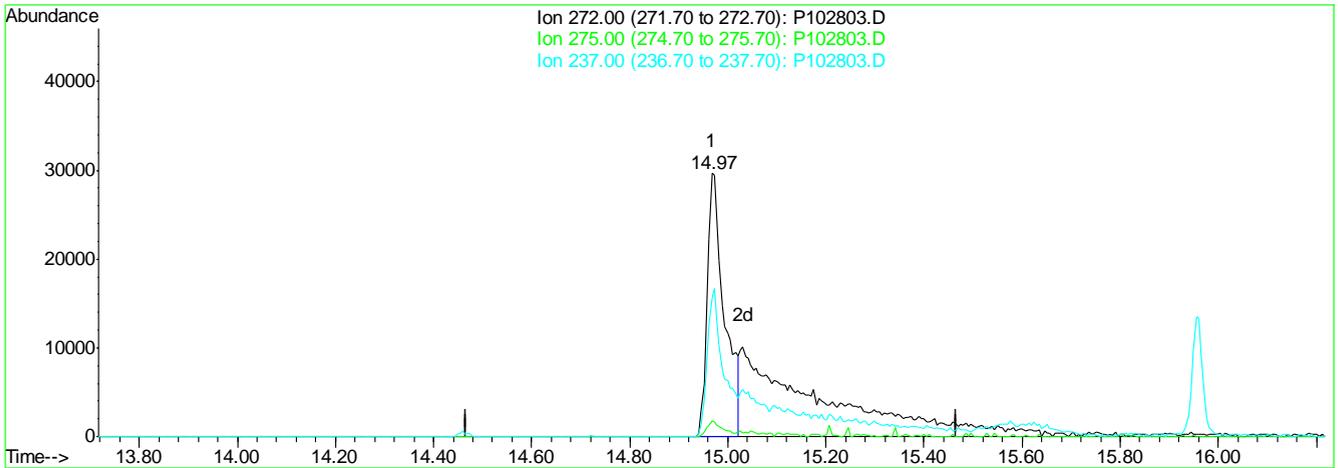
response 195109

Ion	Exp%	Act%
108.00	100	100
80.00	19.80	42.74#
54.00	1.80	10.50#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:39 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.97min 600.00ppm

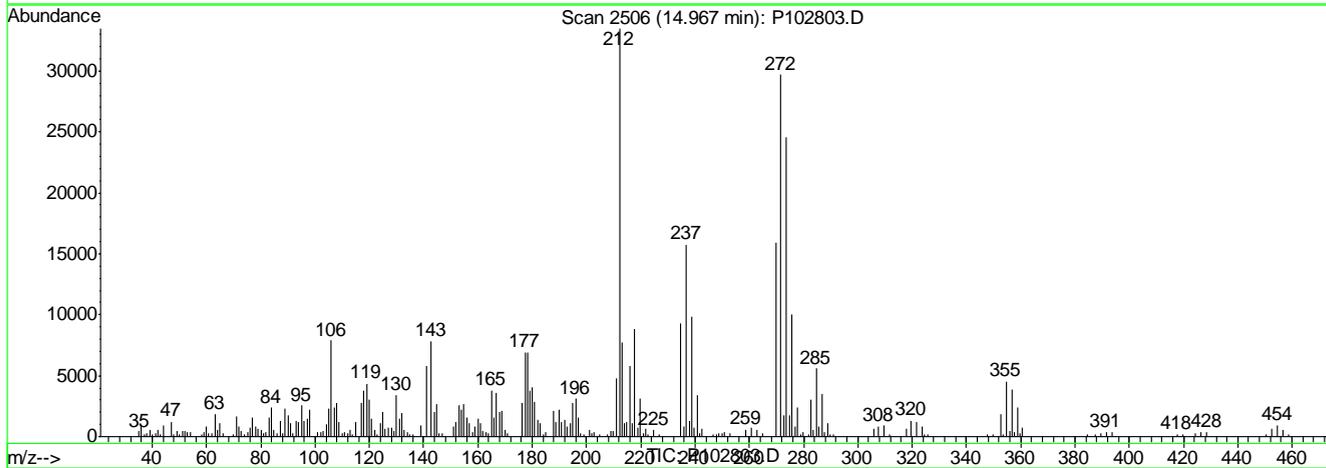
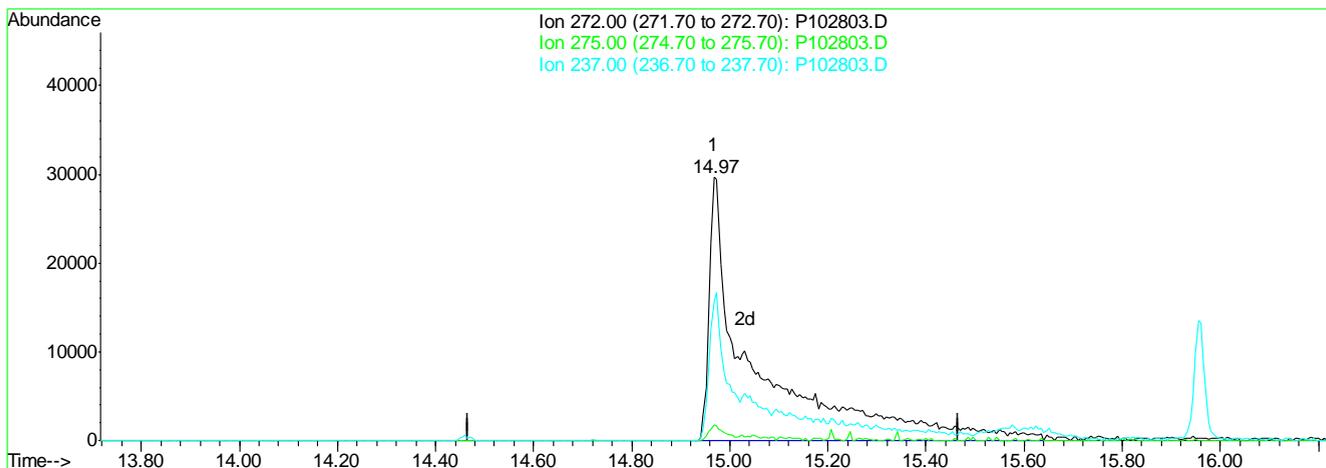
response 72669

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	40.42#
237.00	28.40	54.59
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102803.D Vial: 2
 Acq On : 24 Feb 2016 10:15 am Operator: linseyk
 Sample : ic4515-100 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:47 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.97min 1550.68ppm m

response 187811

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	33.80#
237.00	28.40	53.01
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:39:53 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	120465	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	424158	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	252552	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	405633	40.00	ppm	0.00
83) Chrysene-d12	15.96	240	348748	40.00	ppm	0.00
92) Perylene-d12	18.53	264	337073	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	120465	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	424158	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	252552	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	405633	40.00	ppm	0.00
147) Chrysene-d12A	15.96	240	348748	40.00	ppm	0.00
155) Perylene-d12A	18.53	264	337073	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	120465	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	405633	40.00	ppm	0.00
163) Chrysene-d12b	15.96	240	348748	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	424158	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	252552	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	424158	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	120465	40.00	ppm	-0.08
176) Chrysene-d12c	15.96	240	348748	40.00	ppm	0.00
178) Chrysene-d12d	15.96	240	348748	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	424158	40.00	ppm	0.17

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
103) 2-Picoline	2.48	93	369366	78.83	ppm	99
104) Pentachloroethane	4.03	167	128937	81.87	ppm	84
105) Methyl methanesulfonate	2.80	80	184410	80.07	ppm	79
106) N-Nitrosodiethylamine	3.17	102	158781	79.28	ppm	95
107) N-Nitrosomethylethylamine	2.55	42	123307	78.40	ppm	80
108) Ethyl methanesulfonate	3.47	79	246643	80.50	ppm	98
109) N-Nitrosopyrrolidine	4.87	41	92605	79.52	ppm	95
110) N-Nitrosomorpholine	4.92	56	118507	80.40	ppm	88
111) o-Toluidine	4.96	106	400690	81.71	ppm #	19
113) O,O,O-Triethyl phosphoroth	5.78	198	126552	82.42	ppm	98
114) N-Nitrosopiperidine	5.34	42	160117	157.15	ppm	87
115) A,A-Dimethylphenethylamine	6.62	58	672312m	80.51	ppm	

(#) = qualifier out of range (m) = manual integration

P102804.D MP4513.M Wed Feb 24 15:48:08 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:39:53 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	173754	84.83	ppm	97
117) N-Nitrosodi-n-butylamine	6.81	84	202351	81.68	ppm	95
118) p-Phenylenediamine	6.79	108	169504m	85.47	ppm	
119) Safrole	7.12	162	208980	82.18	ppm	84
120) Isosafrole	7.93	162	70392	81.60	ppm	# 52
122) Thionazin	9.76	143	77649	84.32	ppm	98
123) Tetraethyl dithiopyrophosp	10.30	322	70762	84.30	ppm	100
124) Phorate	10.47	75	332659	84.15	ppm	100
125) Phenacetin	10.52	108	316340	83.40	ppm	98
126) 1,4-Naphthoquinone	8.26	158	151056	85.35	ppm	94
127) m-Dinitrobenzene	8.50	168	96370	85.12	ppm	91
128) Pentachlorobenzene	9.13	250	199698	84.92	ppm	97
129) 2-Naphthylamine	9.45	143	483387	83.77	ppm	92
130) 1-Naphthylamine	9.32	143	425031	82.63	ppm	93
131) 5-Nitro-o-toluidine	9.78	152	175257	83.53	ppm	98
133) Disulfoton	11.32	88	276204	84.31	ppm	95
134) Dinoseb	11.30	211	137985	86.53	ppm	95
135) Dimethoate	10.73	87	235829	84.64	ppm	72
136) 4-Aminobiphenyl	10.97	169	526852	86.39	ppm	98
137) Methyl parathion	11.92	125	168706	85.08	ppm	84
138) Parathion	12.62	109	122119	86.22	ppm	96
139) Diphenylamine	9.97	169	762145	84.39	ppm	99
140) Isodrin	13.03	193	94177	84.32	ppm	86
141) Diallate	10.47	86	185456	84.69	ppm	86
142) Pentachloronitrobenzene	10.98	295	50942	168.99	ppm	89
143) Pronamide	11.13	173	249646	83.61	ppm	98
144) 4-Nitroquinoline 1-oxide	12.60	190	370816	344.62	ppm	# 62
145) Methapyriline	12.87	58	208391	92.27	ppm	85
146) sym-Trinitrobenzene	10.41	213	54509	85.07	ppm	# 75
148) Aramite	14.25	185	50655	166.24	ppm	97
149) p-(Dimethylamine)azobenzen	14.34	120	294305	82.99	ppm	90
150) Kepone	14.97	272	179723m	1453.80	ppm	
151) Famphur	14.92	218	802664	594.46	ppm	94
152) 2-Acetylaminofluorene	15.43	181	386599	85.77	ppm	96
153) 3,3'-Dimethylbenzidine	14.97	212	96657	98.17	ppm	98
154) Chlorobenzilate	14.46	251	226713	85.45	ppm	97
156) 4,4-Methylene-bis-(2-chlor	15.99	266	70834	86.31	ppm	99
157) Hexachlorophene	18.31	196	291685	414.91	ppm	# 97
158) 3-Methylcholanthrene	19.03	252	158971	84.95	ppm	# 76

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102804.D MP4513.M Wed Feb 24 15:48:08 2016

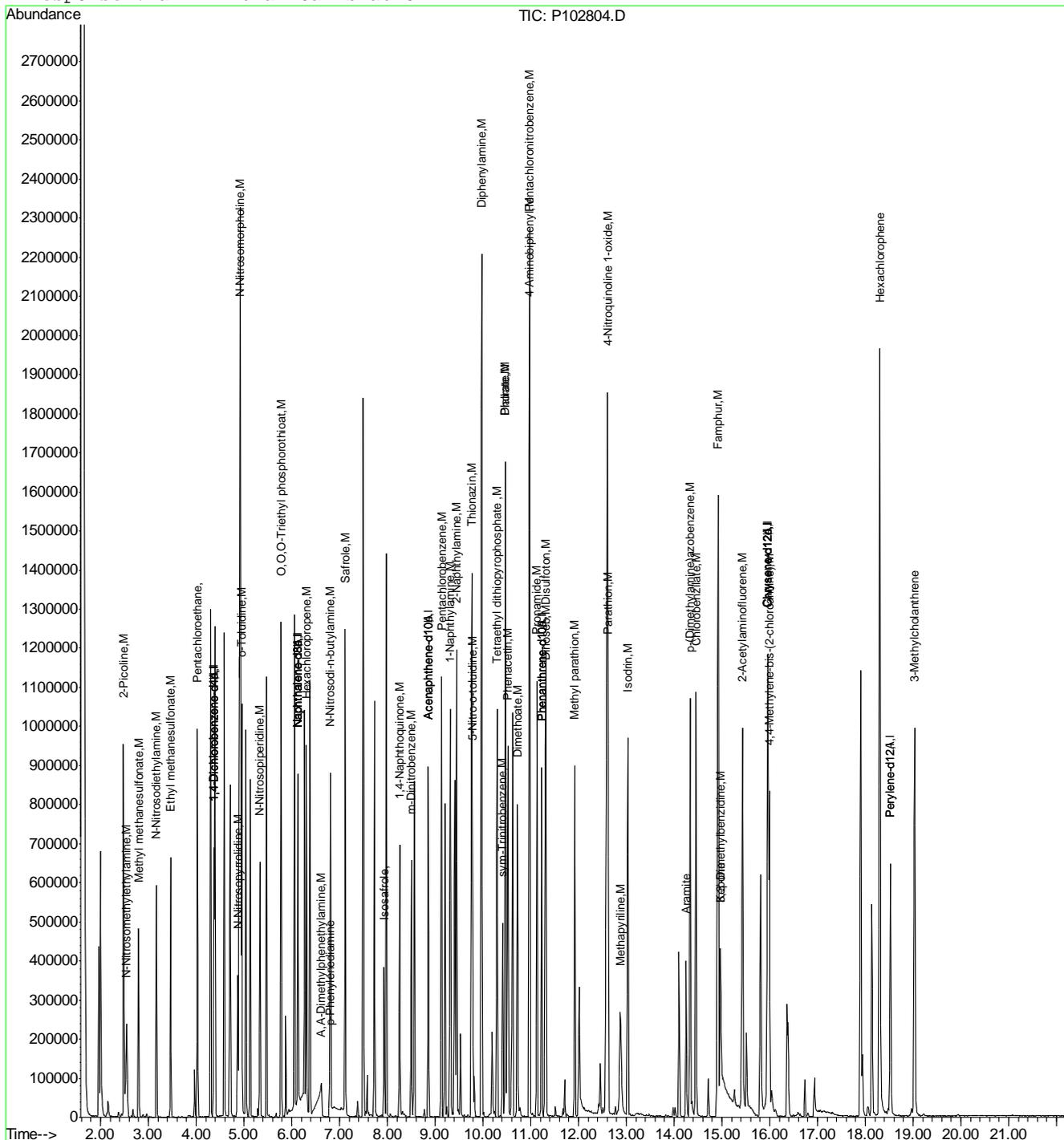
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D
Acq On : 24 Feb 2016 10:44 am
Sample : ic4515-80
Misc : op91338,ep4515
MS Integration Params: rteint.p
Quant Time: Feb 24 15:48 2016

Vial: 3
Operator: linseyk
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 15:37:08 2016
Response via : Initial Calibration



9.6.27 9

Manual Integration Approval Summary

Sample Number: EP4515-IC4515 Method: SW846 8270D
Lab FileID: P102804.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 10:44 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.62	Split peak
p-Phenylenediamine	106-50-3		6.79	Split peak
Kepone	143-50-0		14.97	Split peak

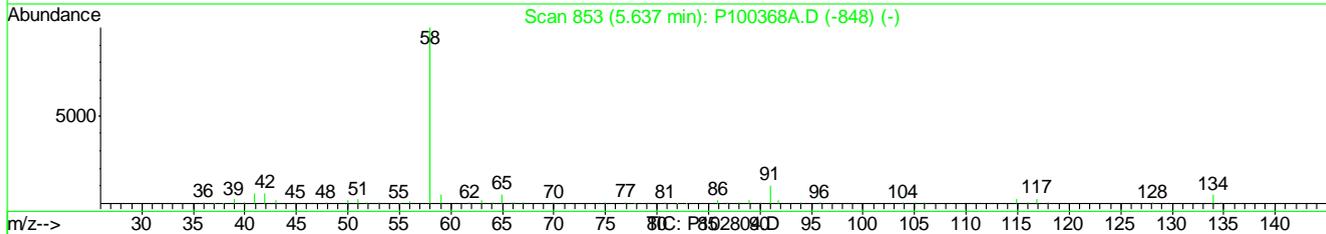
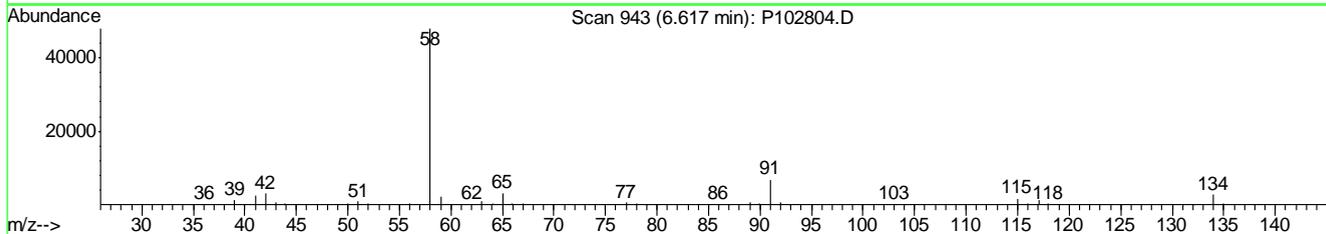
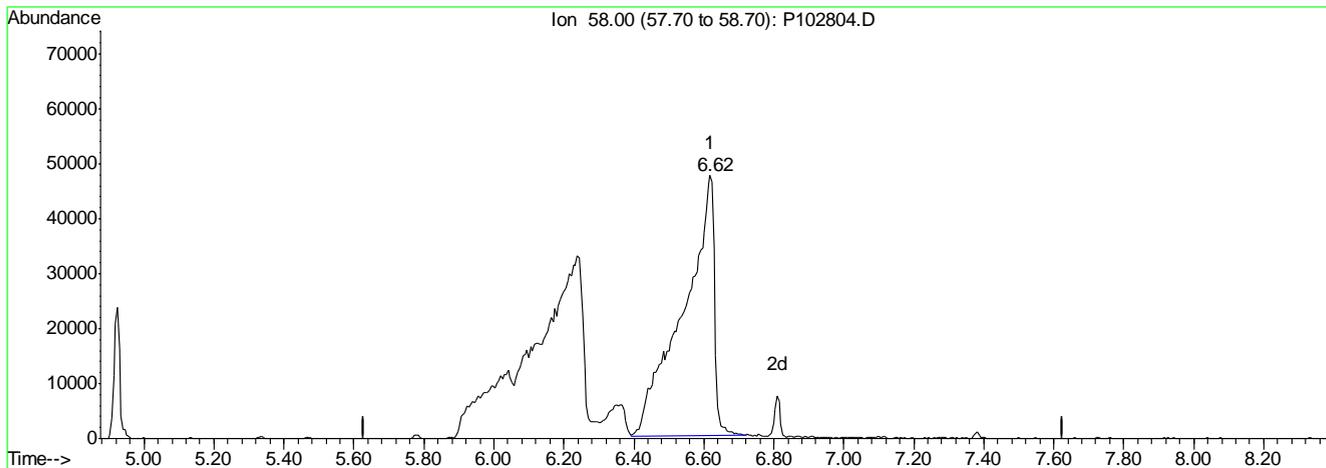
9.6.27.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:40 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.62min 34.67ppm

response 289509

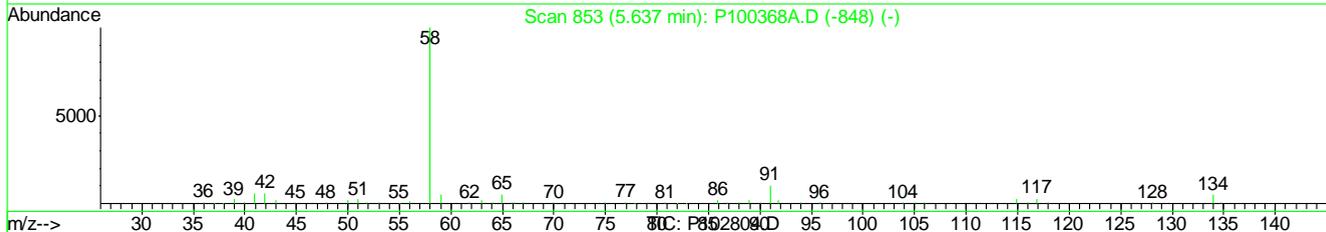
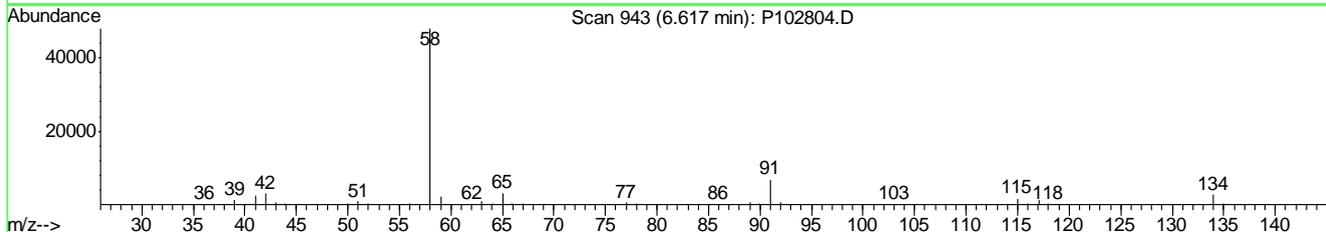
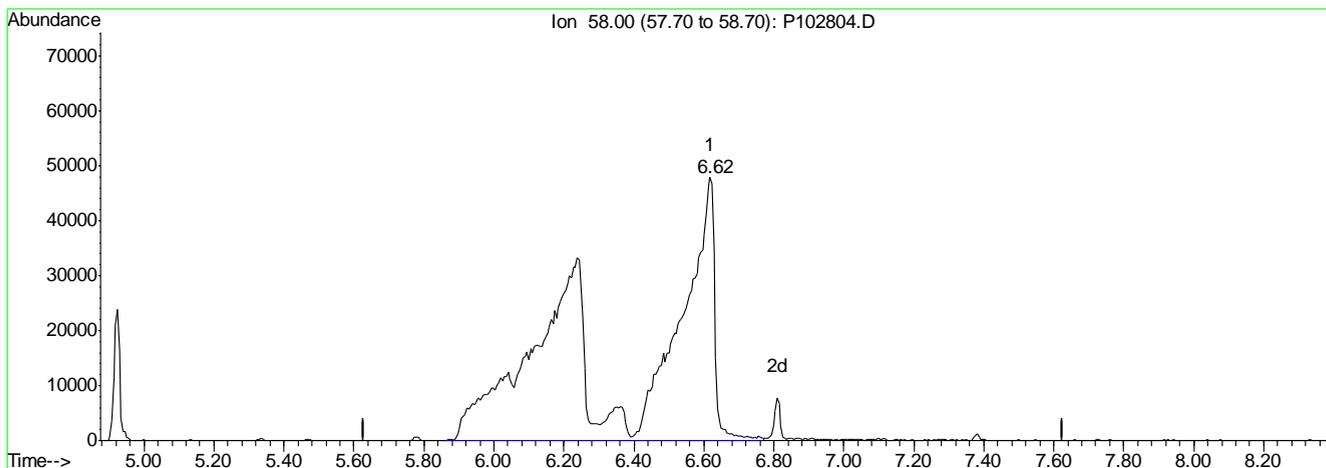
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.27.2
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:40 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.62min 80.51ppm m

response 672312

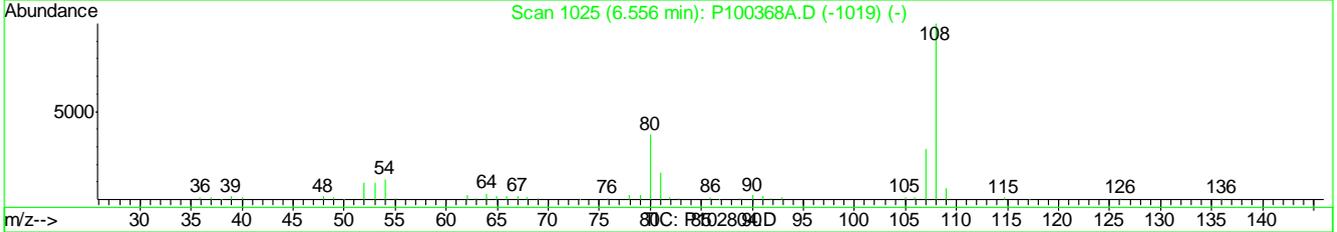
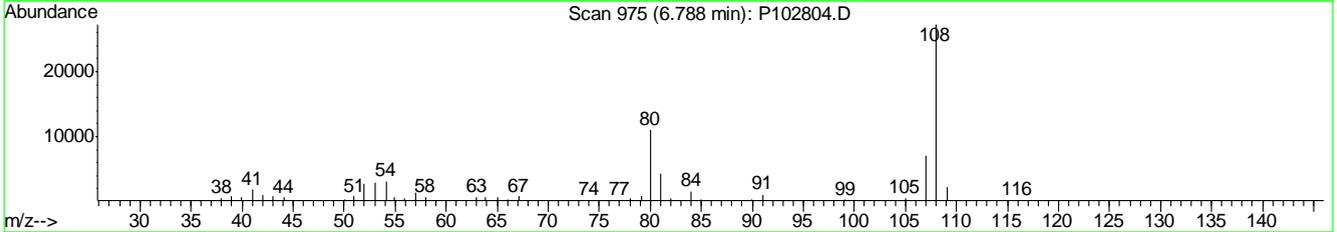
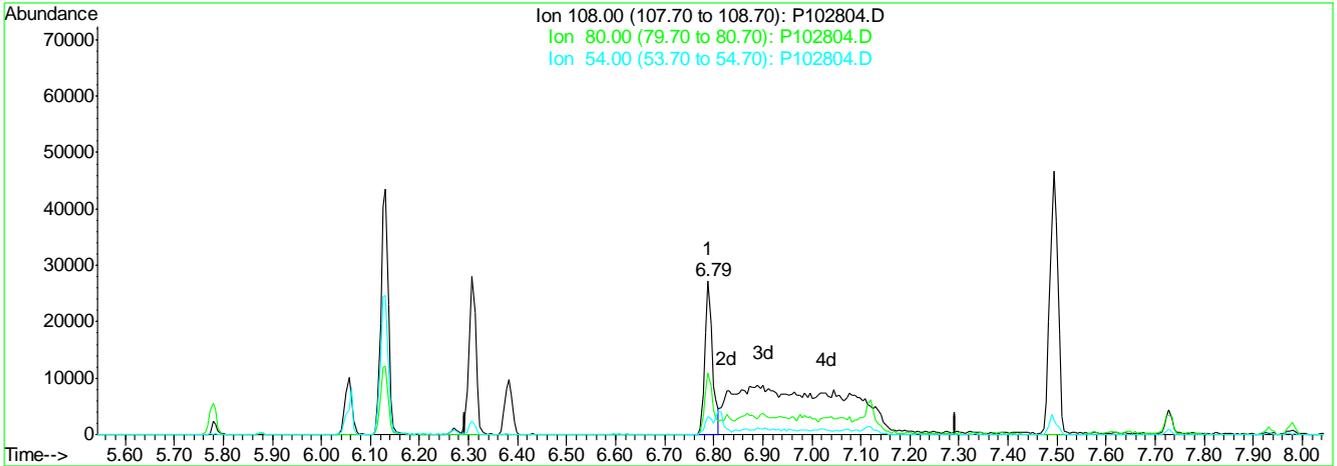
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.27.3
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:40 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 14.96ppm

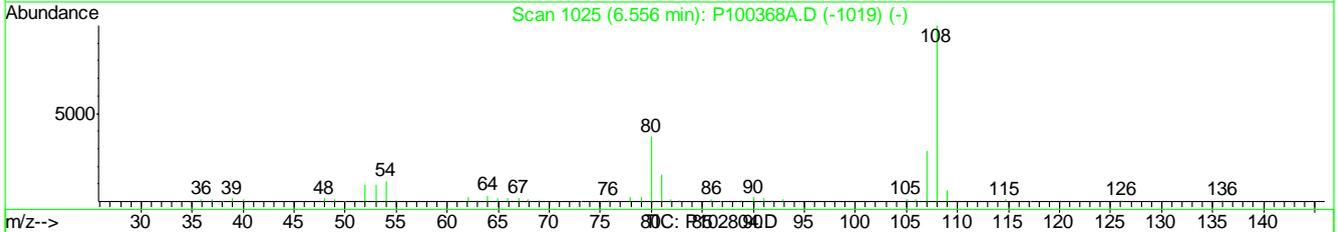
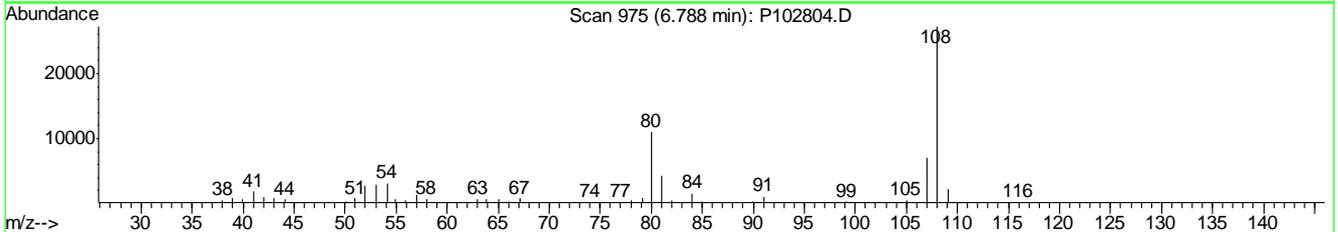
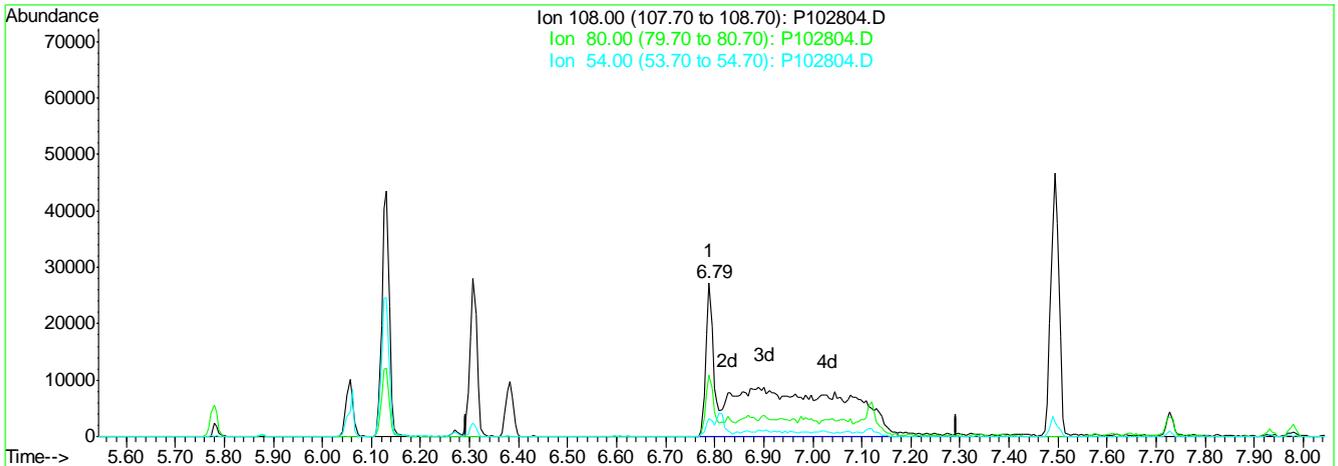
response 29673

Ion	Exp%	Act%
108.00	100	100
80.00	19.80	39.22#
54.00	1.80	4.32#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:41 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 85.47ppm m

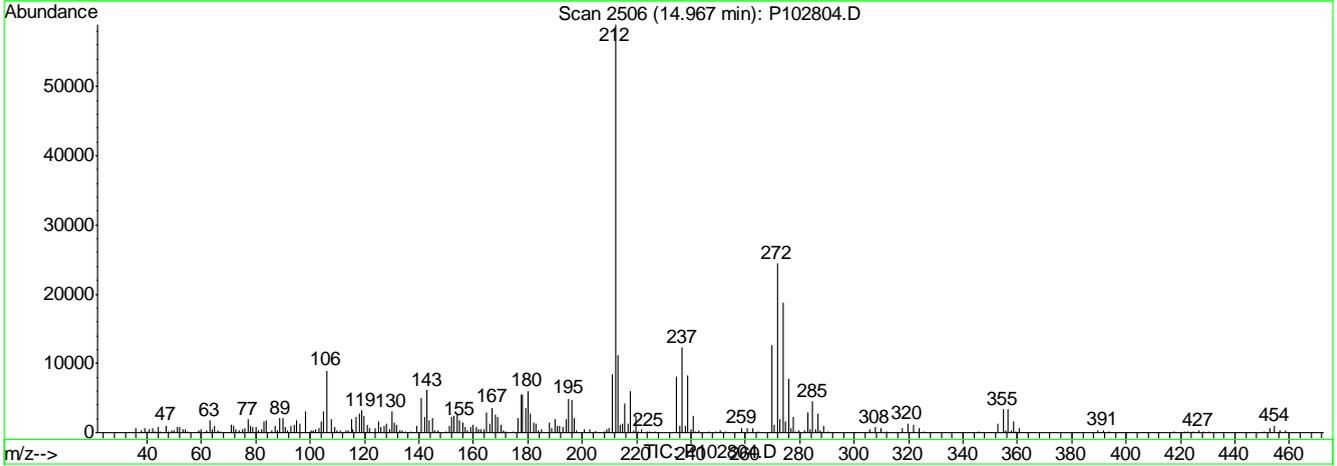
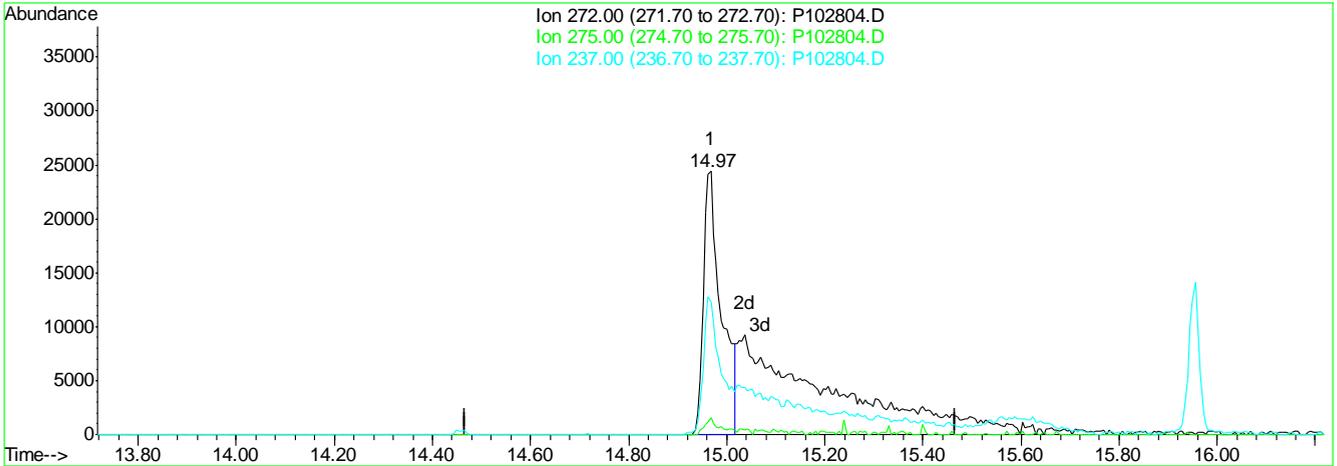
response 169504

Ion	Exp%	Act%
108.00	100	100
80.00	19.80	40.17#
54.00	1.80	11.54#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:41 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.97min 499.62ppm

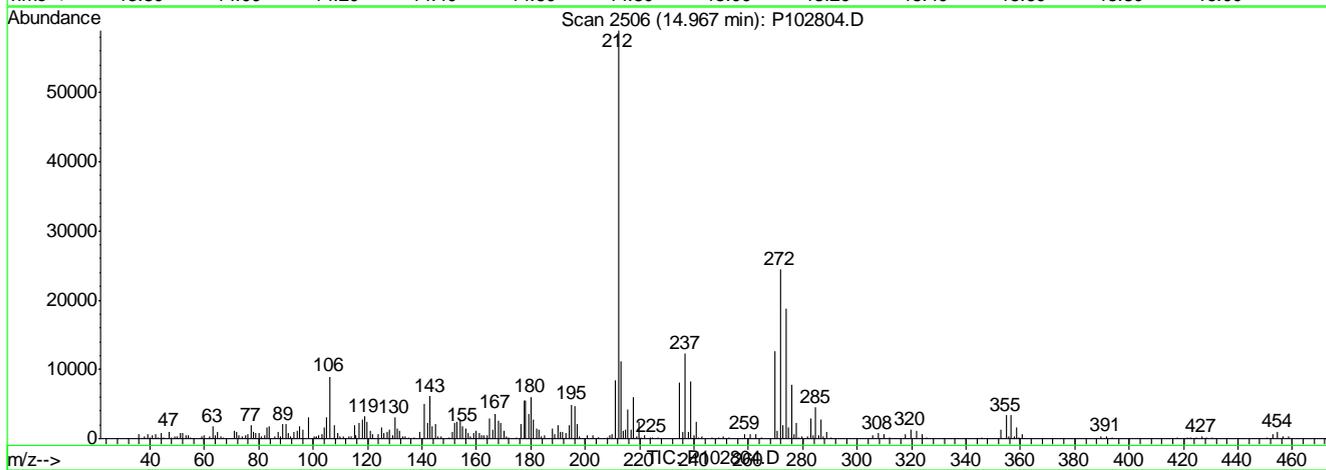
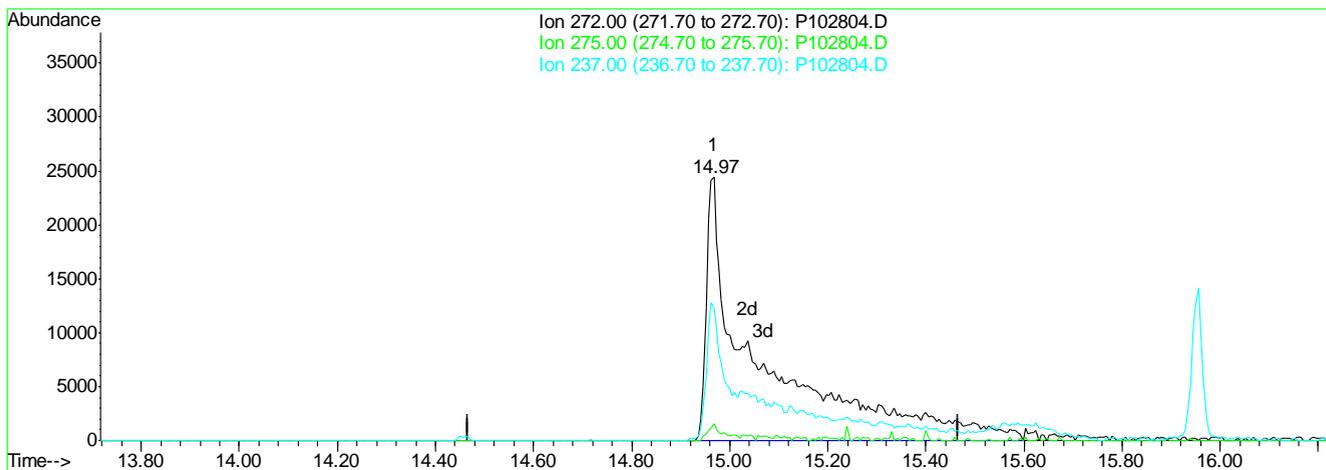
response 61764

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	0.00
237.00	28.40	46.74
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102804.D Vial: 3
 Acq On : 24 Feb 2016 10:44 am Operator: linseyk
 Sample : ic4515-80 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:48 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.97min 1453.80ppm m

response 179723

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	6.53
237.00	28.40	50.15
0.00	0.00	0.00

9.6.27.7
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:41:58 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	115026	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	401949	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	240393	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	381071	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	332775	40.00	ppm	0.00
92) Perylene-d12	18.52	264	322025	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	115026	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	401949	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	240393	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	381071	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	332775	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	322025	40.00	ppm	-0.01
159) 1,4-Dichlorobenzene-d4b	4.37	152	115026	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	381071	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	332775	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	401949	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	240393	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	401949	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	115026	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	332775	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	332775	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	401949	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
103) 2-Picoline	2.48	93	232351	51.94	ppm	99
104) Pentachloroethane	4.03	167	80944	53.82	ppm	86
105) Methyl methanesulfonate	2.79	80	114983	52.29	ppm	78
106) N-Nitrosodiethylamine	3.17	102	98568	51.54	ppm	94
107) N-Nitrosomethylethylamine	2.55	42	76780	51.13	ppm	81
108) Ethyl methanesulfonate	3.47	79	152140	52.00	ppm	98
109) N-Nitrosopyrrolidine	4.86	41	55887	50.26	ppm	91
110) N-Nitrosomorpholine	4.91	56	76946	54.67	ppm	89
111) o-Toluidine	4.95	106	255050	54.47	ppm	# 31
113) O,O,O-Triethyl phosphoroth	5.78	198	78720	54.10	ppm	90
114) N-Nitrosopiperidine	5.33	42	97472	100.95	ppm	86
115) A,A-Dimethylphenethylamine	6.51	58	375931m	47.50	ppm	

(#) = qualifier out of range (m) = manual integration
 P102805.D MP4513.M Wed Feb 24 15:48:21 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:41:58 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	105149	54.17	ppm	98
117) N-Nitrosodi-n-butylamine	6.81	84	124197	52.90	ppm	95
118) p-Phenylenediamine	6.79	108	92173m	49.05	ppm	
119) Safrole	7.12	162	130538	54.17	ppm	88
120) Isosafrole	7.93	162	41839	51.18	ppm	# 54
122) Thionazin	9.76	143	48316	55.12	ppm	98
123) Tetraethyl dithiopyrophosp	10.29	322	43419	54.34	ppm	100
124) Phorate	10.47	75	209873	55.77	ppm	100
125) Phenacetin	10.51	108	195289	54.09	ppm	98
126) 1,4-Naphthoquinone	8.26	158	92795	55.08	ppm	92
127) m-Dinitrobenzene	8.50	168	54946	50.99	ppm	96
128) Pentachlorobenzene	9.13	250	120471	53.82	ppm	98
129) 2-Naphthylamine	9.44	143	303580	55.27	ppm	96
130) 1-Naphthylamine	9.31	143	255754	52.24	ppm	94
131) 5-Nitro-o-toluidine	9.77	152	105687	52.92	ppm	98
133) Disulfoton	11.31	88	175206	56.93	ppm	94
134) Dinoseb	11.30	211	78428	52.35	ppm	90
135) Dimethoate	10.71	87	148752	56.83	ppm	76
136) 4-Aminobiphenyl	10.97	169	340854	59.49	ppm	99
137) Methyl parathion	11.92	125	107292	57.59	ppm	84
138) Parathion	12.61	109	79378	59.65	ppm	92
139) Diphenylamine	9.97	169	492416	58.04	ppm	99
140) Isodrin	13.03	193	58666	55.91	ppm	87
141) Diallate	10.46	86	116641	56.70	ppm	82
142) Pentachloronitrobenzene	10.97	295	31437	111.01	ppm	92
143) Pronamide	11.13	173	151727	54.09	ppm	98
144) 4-Nitroquinoline 1-oxide	12.59	190	226774	224.33	ppm	# 60
145) Methapyriline	12.85	58	143991m	67.87	ppm	
146) sym-Trinitrobenzene	10.40	213	30324	50.38	ppm	# 76
148) Aramite	14.25	185	30151	103.70	ppm	95
149) p-(Dimethylamine)azobenzen	14.33	120	184183	54.43	ppm	91
150) Kepone	14.96	272	119368m	1011.93	ppm	
151) Famphur	14.92	218	639151	496.08	ppm	93
152) 2-Acetylaminofluorene	15.42	181	233941	54.39	ppm	94
153) 3,3'-Dimethylbenzidine	14.97	212	83840	89.24	ppm	95
154) Chlorobenzilate	14.45	251	137840	54.45	ppm	95
156) 4,4-Methylene-bis-(2-chlor	15.99	266	49974	63.74	ppm	98
157) Hexachlorophene	18.29	196	146723	218.46	ppm	# 97
158) 3-Methylcholanthrene	19.02	252	97394	54.47	ppm	# 71

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102805.D MP4513.M Wed Feb 24 15:48:21 2016

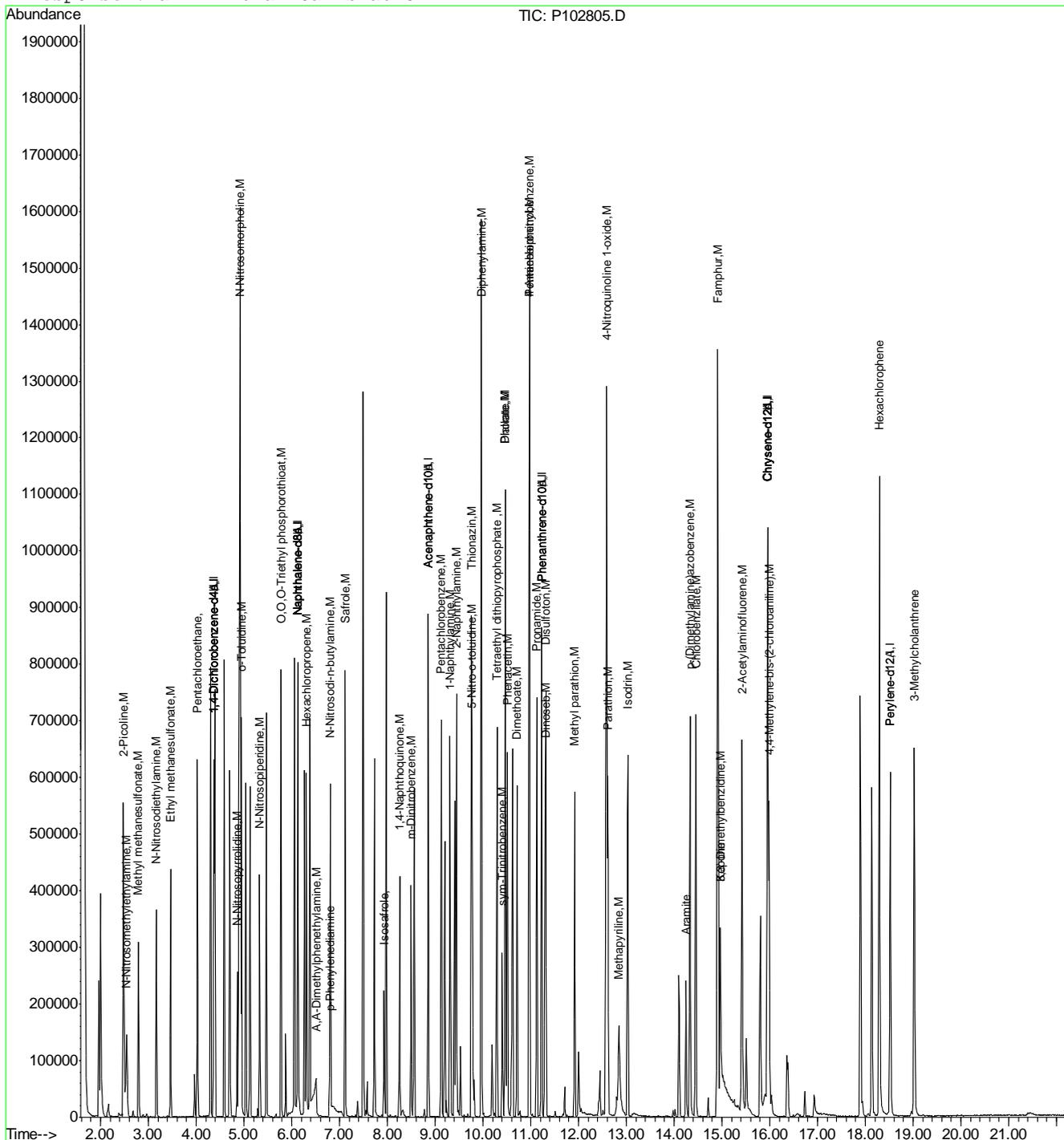
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D
 Acq On : 24 Feb 2016 11:13 am
 Sample : icc4515-50
 Misc : op91338,ep4515
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:47 2016

Vial: 4
 Operator: linseyk
 Inst : MSP
 Multiplr: 1.00

Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration



9.6:28
9

Manual Integration Approval Summary

Sample Number: EP4515-ICC4515 Method: SW846 8270D
Lab FileID: P102805.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 11:13 Supervisor approved: 02/26/16 12:38 Nina Pandya

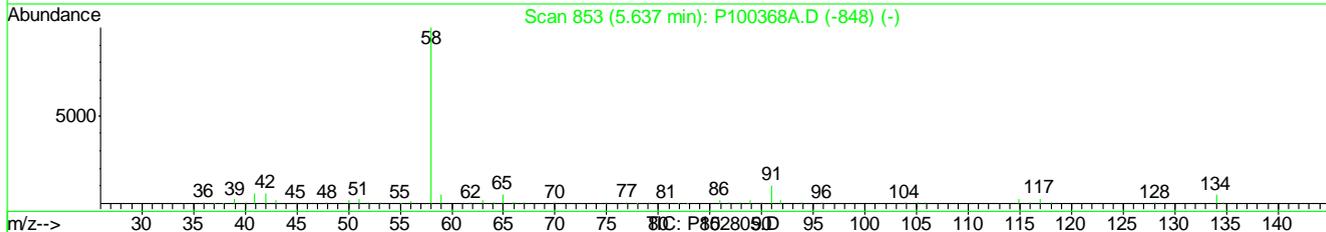
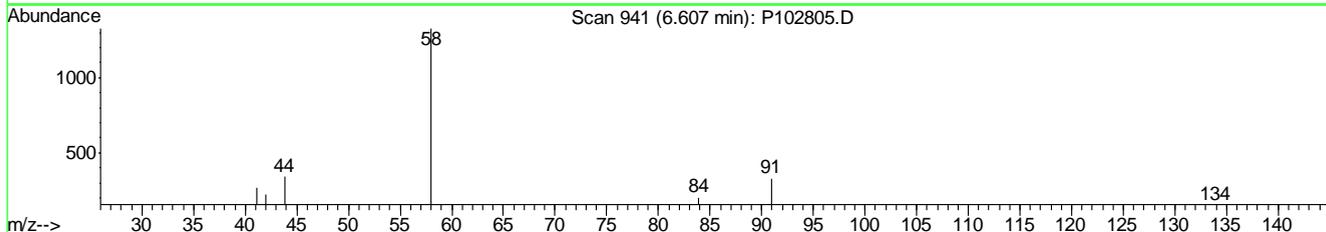
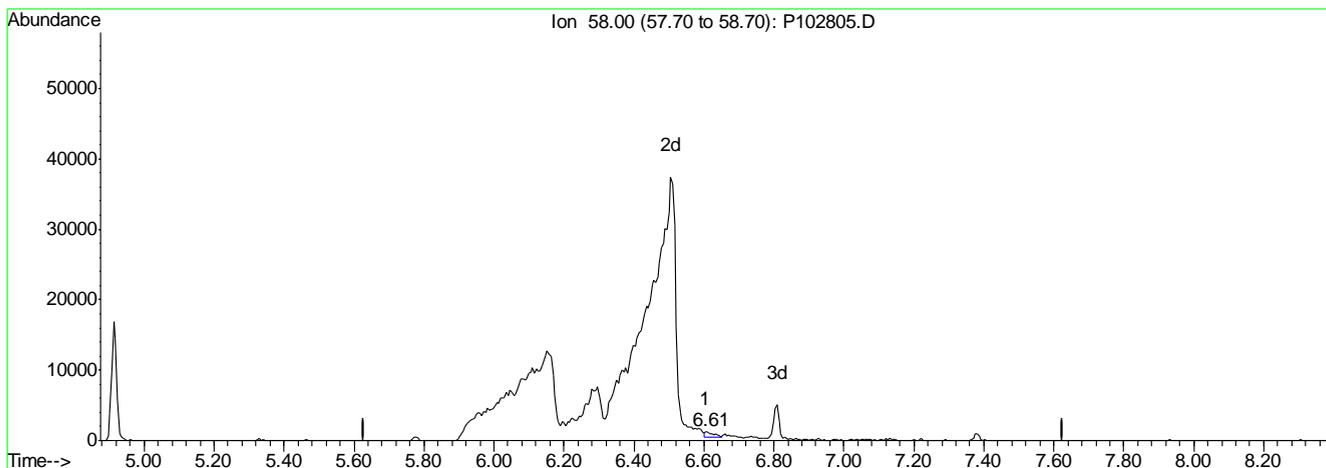
Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.51	Split peak
p-Phenylenediamine	106-50-3		6.79	Split peak
Methapyrilene	91-80-5		12.85	Split peak
Kepone	143-50-0		14.96	Split peak

9.6.28.1
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:42 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.61min 0.14ppm

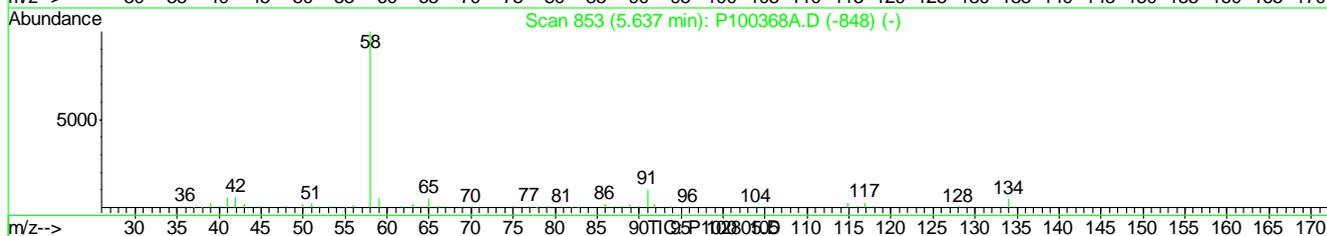
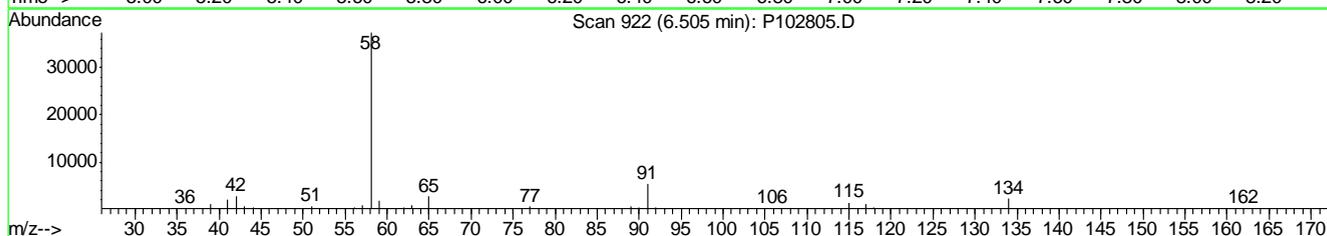
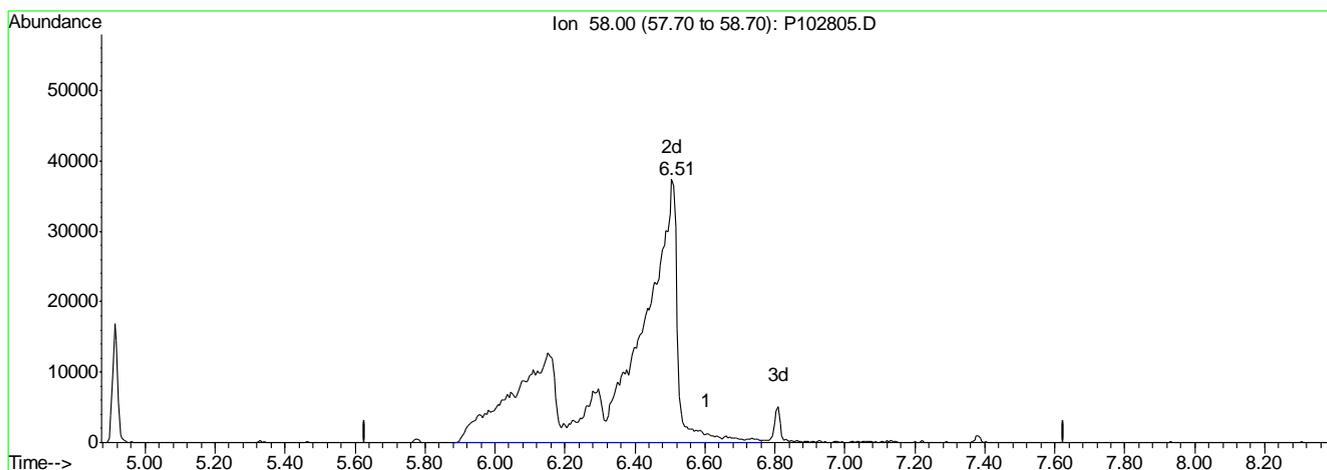
response 1136

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:42 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.51min 47.50ppm m

response 375931

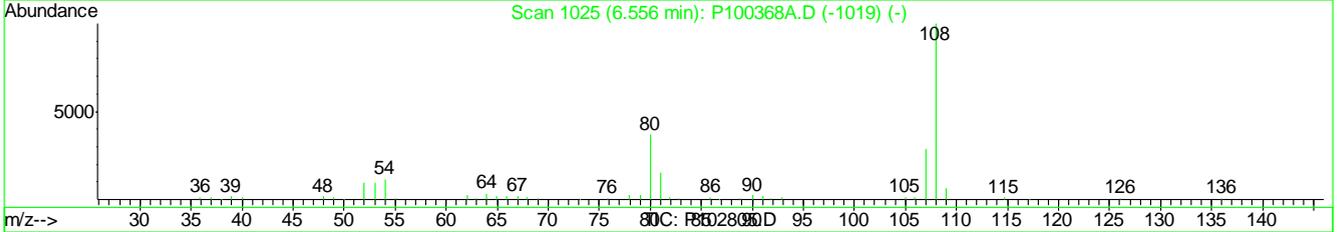
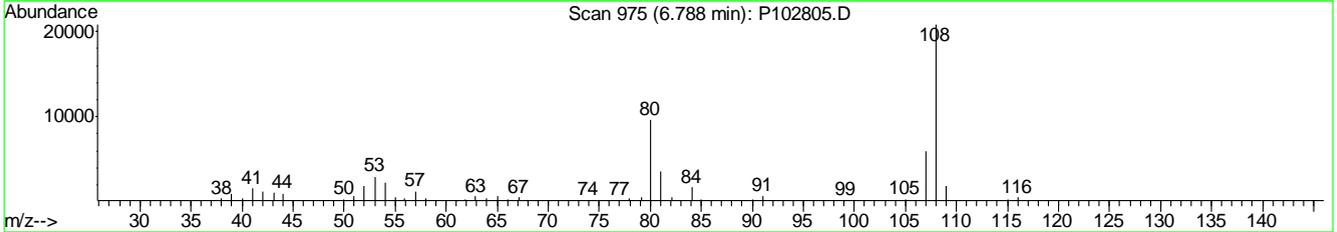
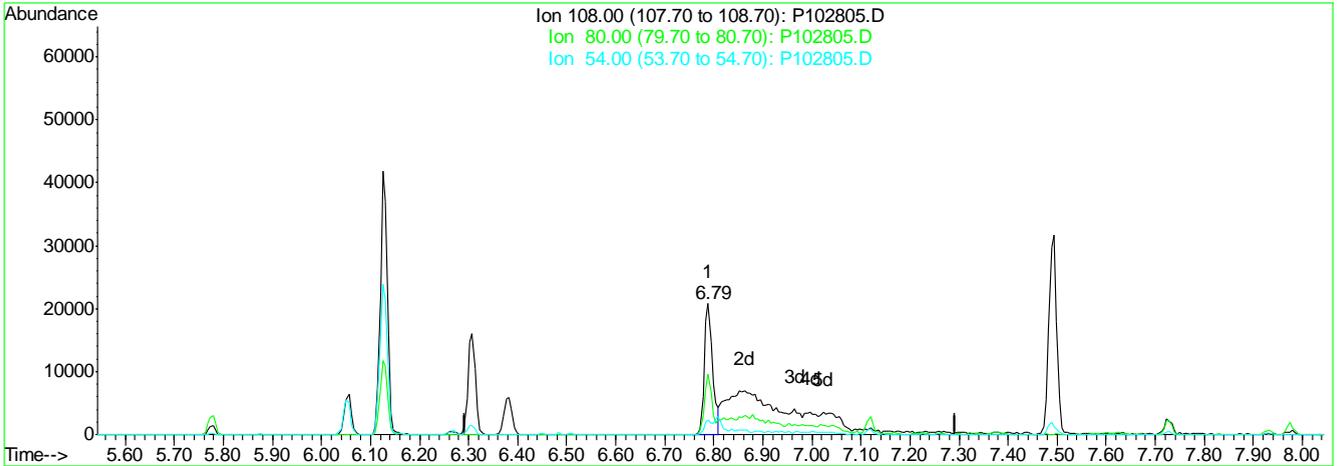
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.28.3
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:42 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 13.27ppm

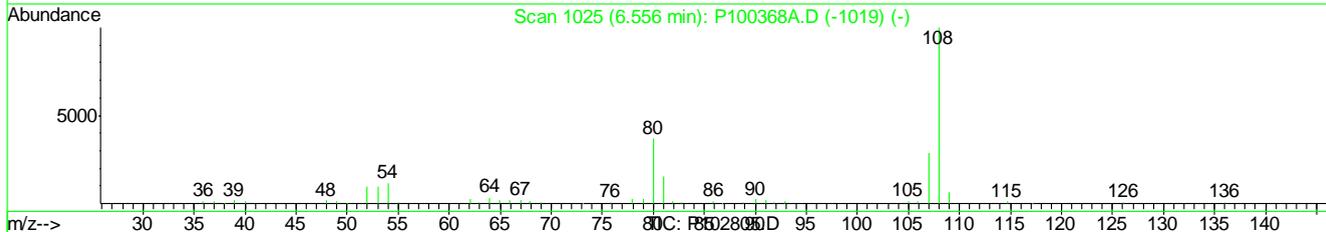
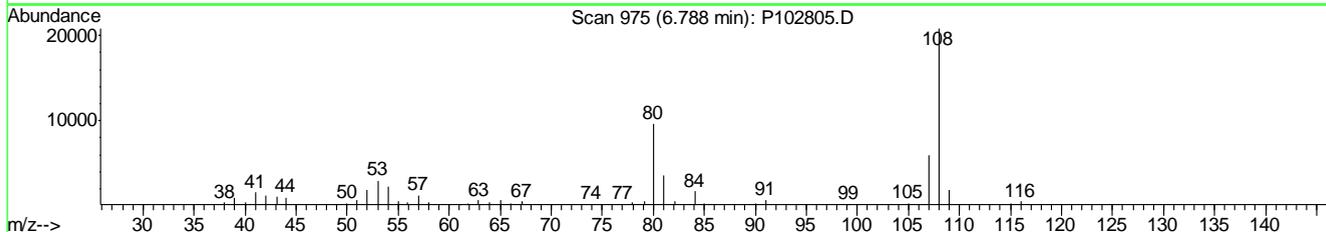
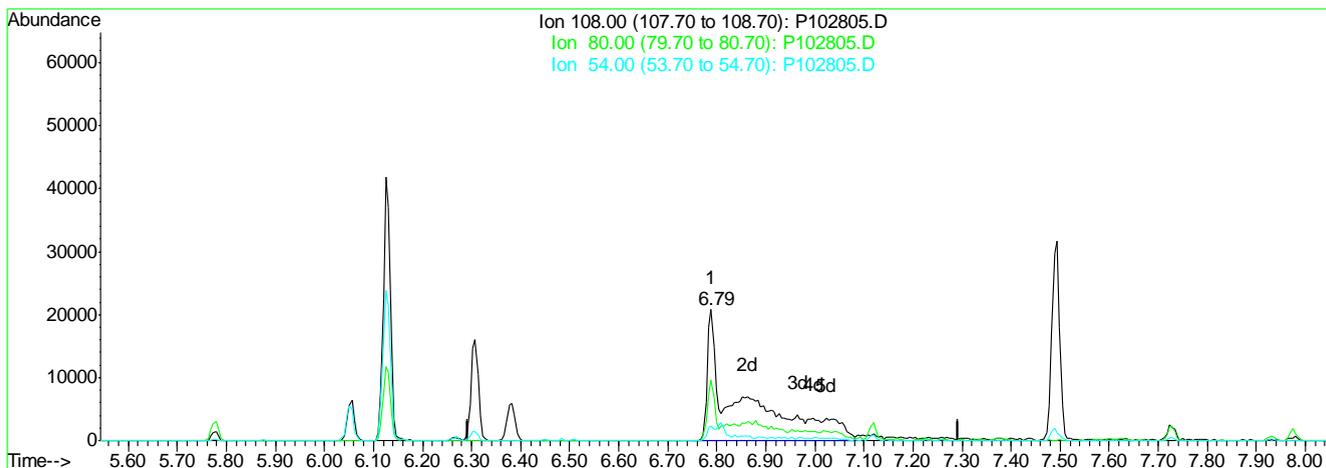
response 24947

Ion	Exp%	Act%
108.00	100	100
80.00	19.80	45.26#
54.00	1.80	4.52#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:43 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 49.05ppm m

response 92173

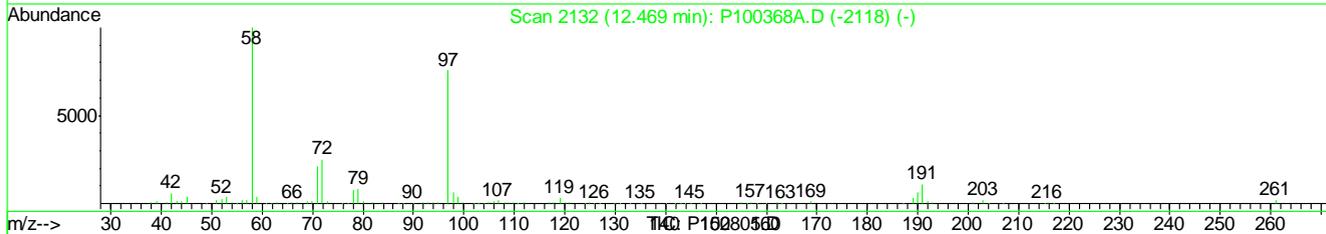
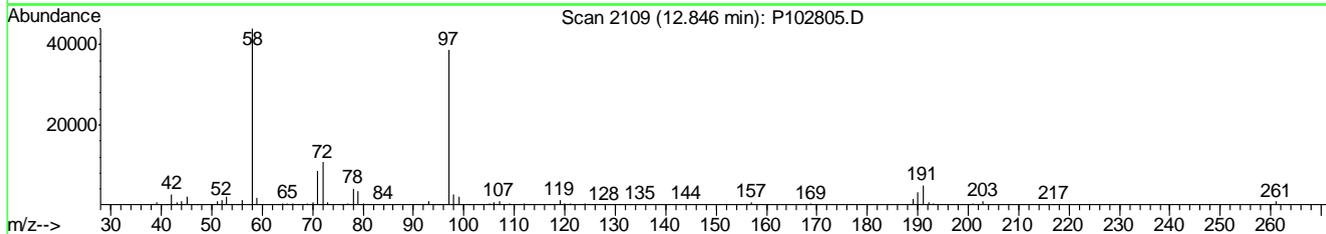
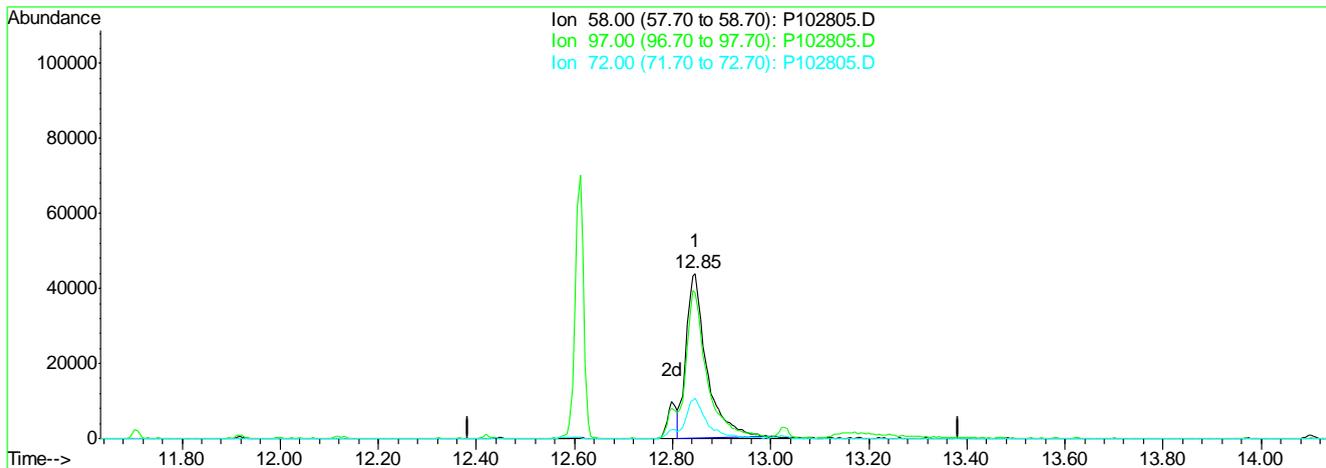
Ion	Exp%	Act%
108.00	100	100
80.00	19.80	46.16#
54.00	1.80	10.92#
0.00	0.00	0.00

9.6.28.5
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:43 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(145) Methapyriline (M)

12.85min 60.20ppm

response 127719

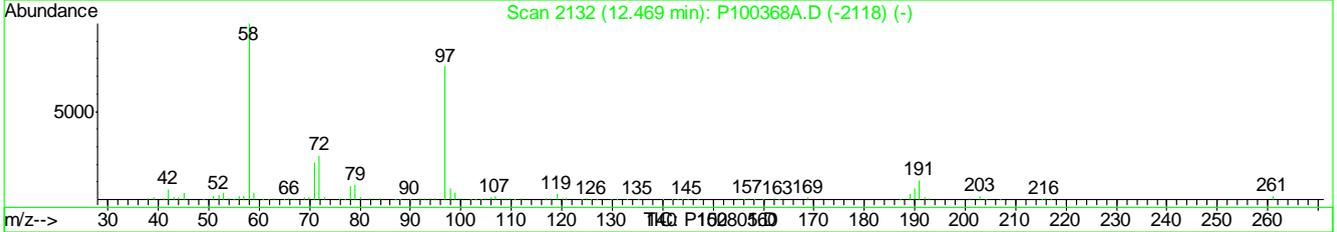
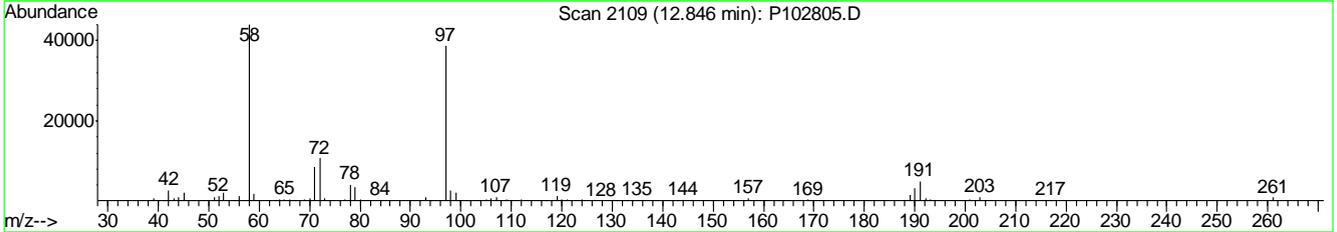
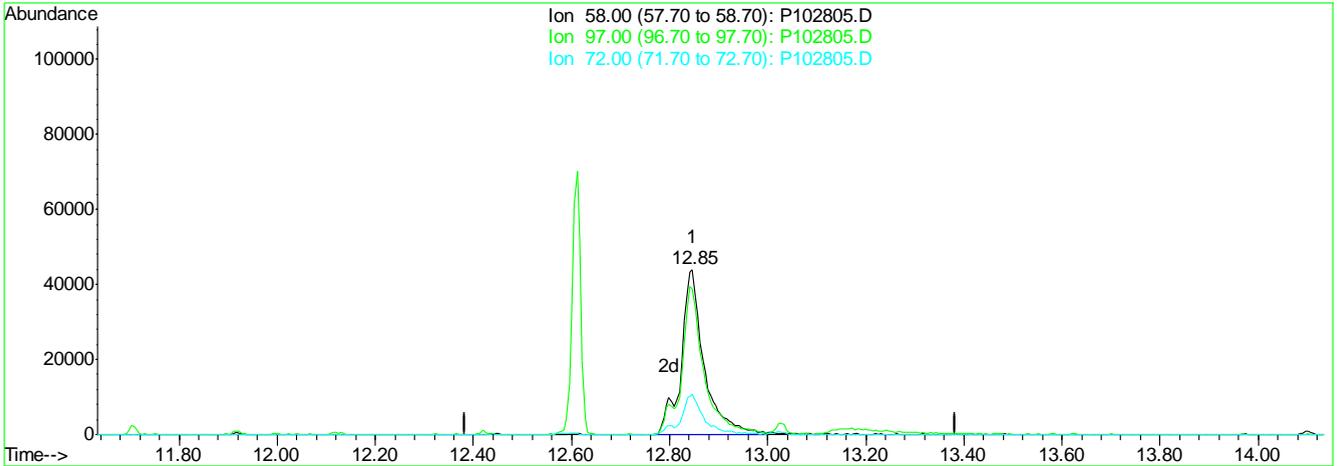
Ion	Exp%	Act%
58.00	100	100
97.00	72.10	87.63
72.00	27.20	24.13
0.00	0.00	0.00

9.6.28.6
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:43 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(145) Methapyriline (M)

12.85min 67.87ppm m

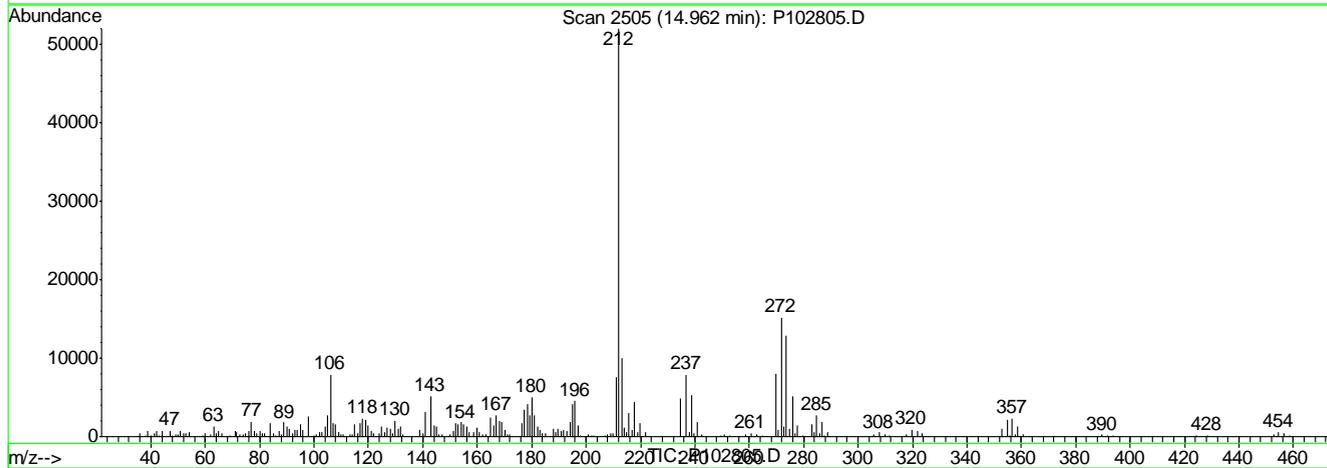
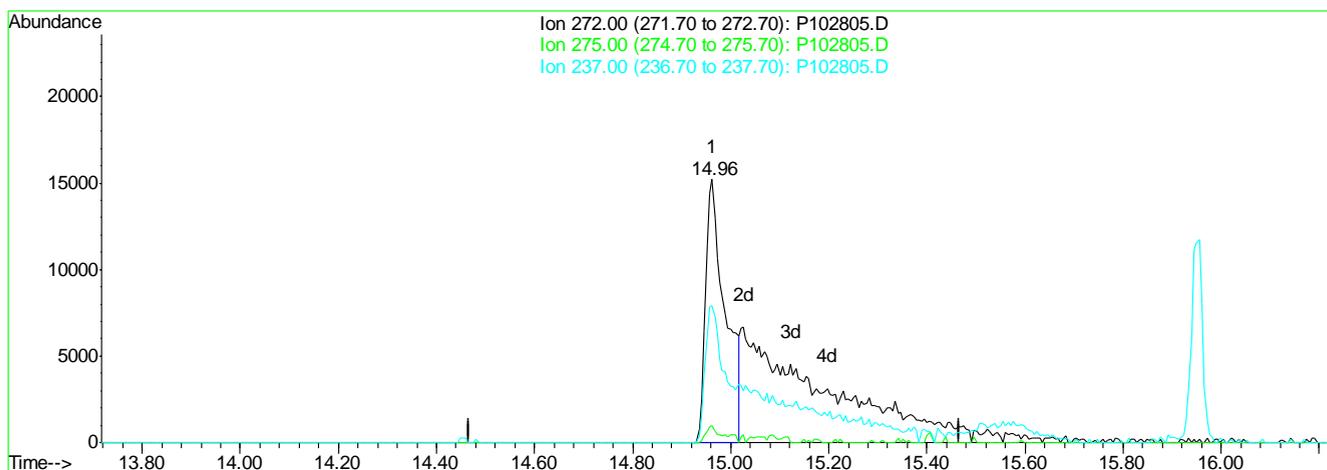
response 143991

Ion	Exp%	Act%
58.00	100	100
97.00	72.10	88.19
72.00	27.20	24.39
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:43 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.96min 357.43ppm

response 42163

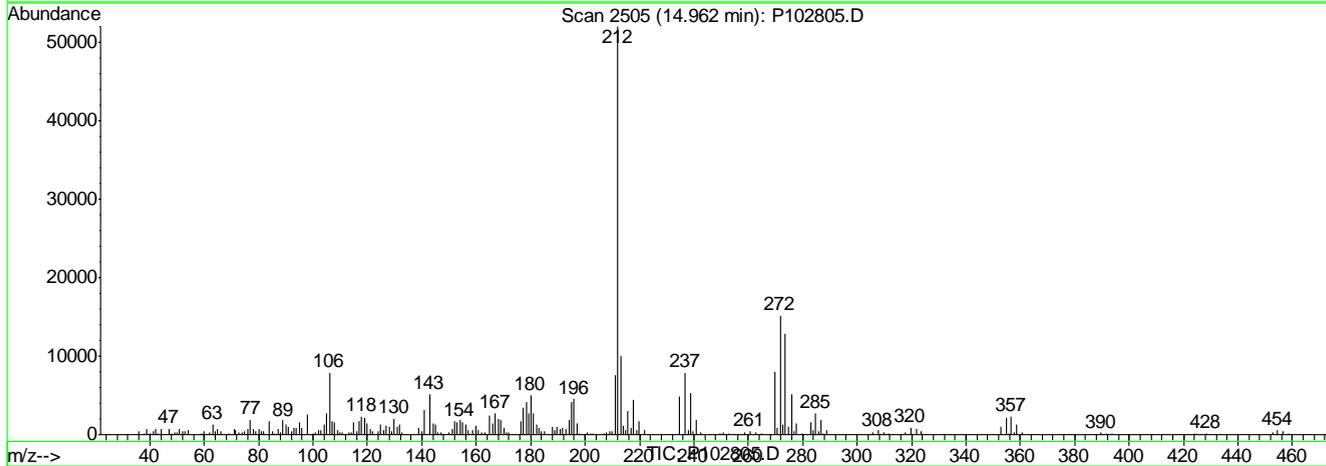
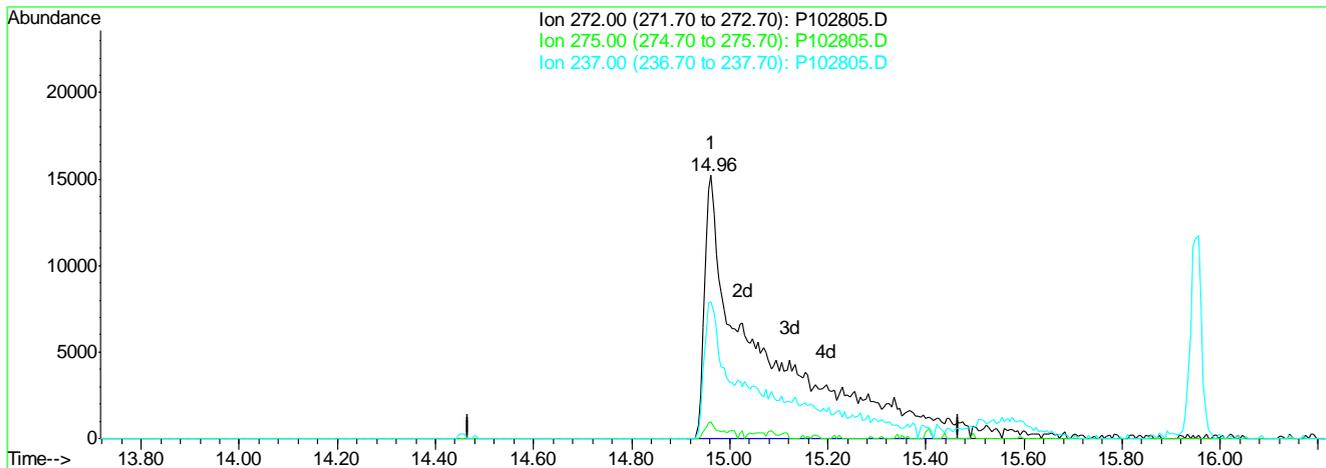
Ion	Exp%	Act%
272.00	100	100
275.00	3.50	0.00
237.00	28.40	46.24
0.00	0.00	0.00

9.6.28.8
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102805.D Vial: 4
 Acq On : 24 Feb 2016 11:13 am Operator: linseyk
 Sample : icc4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:47 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.96min 1011.93ppm m

response 119368

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	6.41
237.00	28.40	51.76
0.00	0.00	0.00

9.6.28.9
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:44:19 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	114946	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	406001	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	235987	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	376750	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	332035	40.00	ppm	0.00
92) Perylene-d12	18.52	264	316586	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	114946	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	406001	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	235987	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	376750	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	332035	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	316586	40.00	ppm	-0.01
159) 1,4-Dichlorobenzene-d4b	4.37	152	114946	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	376750	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	332035	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	406001	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	235987	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	406001	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	114946	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	332035	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	332035	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	406001	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
103) 2-Picoline	2.48	93	121960	27.28	ppm	99
104) Pentachloroethane	4.03	167	42223	28.10	ppm	82
105) Methyl methanesulfonate	2.79	80	59405	27.03	ppm	81
106) N-Nitrosodiethylamine	3.17	102	49741	26.03	ppm	94
107) N-Nitrosomethylethylamine	2.55	42	39245	26.15	ppm	80
108) Ethyl methanesulfonate	3.46	79	80116	27.40	ppm	96
109) N-Nitrosopyrrolidine	4.85	41	27453	24.71	ppm	91
110) N-Nitrosomorpholine	4.91	56	44684	31.77	ppm	89
111) o-Toluidine	4.94	106	139779	29.87	ppm	# 35
113) O,O,O-Triethyl phosphoroth	5.77	198	41094	27.96	ppm	98
114) N-Nitrosopiperidine	5.32	42	51546	52.85	ppm	82
115) A,A-Dimethylphenethylamine	6.35	58	180824m	22.62	ppm	

(#) = qualifier out of range (m) = manual integration
 P102806.D MP4513.M Wed Feb 24 15:48:39 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:44:19 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

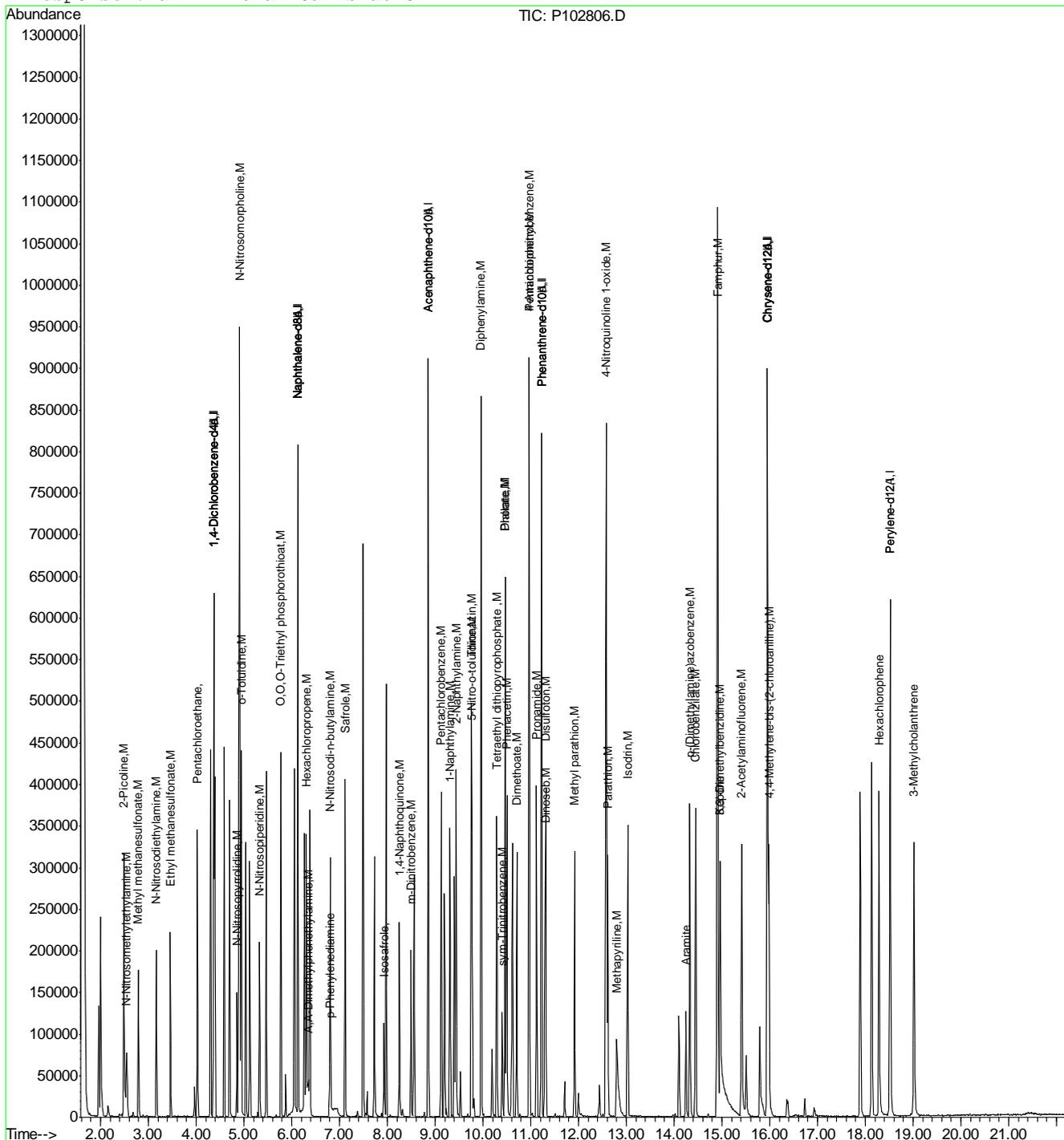
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	54560	27.83	ppm	97
117) N-Nitrosodi-n-butylamine	6.80	84	67253	28.36	ppm	98
118) p-Phenylenediamine	6.79	108	49189m	25.91	ppm	
119) Safrole	7.12	162	68481	28.13	ppm	88
120) Isosafrole	7.93	162	21816	26.42	ppm	# 45
122) Thionazin	9.76	143	24662	28.66	ppm	96
123) Tetraethyl dithiopyrophosp	10.29	322	21880	27.90	ppm	100
124) Phorate	10.46	75	117342	31.77	ppm	100
125) Phenacetin	10.50	108	102759	28.99	ppm	99
126) 1,4-Naphthoquinone	8.25	158	47390	28.65	ppm	93
127) m-Dinitrobenzene	8.50	168	26391	24.95	ppm	92
128) Pentachlorobenzene	9.13	250	65342	29.74	ppm	95
129) 2-Naphthylamine	9.44	143	160137	29.70	ppm	92
130) 1-Naphthylamine	9.31	143	137758	28.66	ppm	95
131) 5-Nitro-o-toluidine	9.77	152	56551	28.84	ppm	99
133) Disulfoton	11.31	88	96027	31.56	ppm	99
134) Dinoseb	11.30	211	35348	23.87	ppm	95
135) Dimethoate	10.71	87	81673	31.56	ppm	77
136) 4-Aminobiphenyl	10.97	169	182891	32.29	ppm	99
137) Methyl parathion	11.92	125	54551	29.62	ppm	87
138) Parathion	12.61	109	42220	32.09	ppm	96
139) Diphenylamine	9.97	169	272159	32.45	ppm	98
140) Isodrin	13.03	193	31363	30.23	ppm	89
141) Diallate	10.46	86	65343	32.13	ppm	81
142) Pentachloronitrobenzene	10.97	295	16553	59.12	ppm	86
143) Pronamide	11.12	173	80051	28.87	ppm	96
144) 4-Nitroquinoline 1-oxide	12.58	190	111121	111.19	ppm	# 60
145) Methapyriline	12.80	58	80818	38.53	ppm	85
146) sym-Trinitrobenzene	10.40	213	13474	22.64	ppm	# 59
148) Aramite	14.25	185	14961	51.57	ppm	93
149) p-(Dimethylamine)azobenzen	14.33	120	97794	28.97	ppm	89
150) Kepone	14.96	272	73592m	625.26	ppm	
151) Famphur	14.91	218	443718	345.16	ppm	97
152) 2-Acetylaminofluorene	15.42	181	117771	27.44	ppm	97
153) 3,3'-Dimethylbenzidine	14.96	212	72004	76.81	ppm	98
154) Chlorobenzilate	14.45	251	70819	28.04	ppm	94
156) 4,4-Methylene-bis-(2-chlor	15.98	266	27993	36.31	ppm	98
157) Hexachlorophene	18.28	196	46684	70.70	ppm	# 95
158) 3-Methylcholanthrene	19.02	252	48069	27.35	ppm	# 75

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102806.D MP4513.M Wed Feb 24 15:48:39 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:48 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Initial Calibration



9.6-29
9

Manual Integration Approval Summary

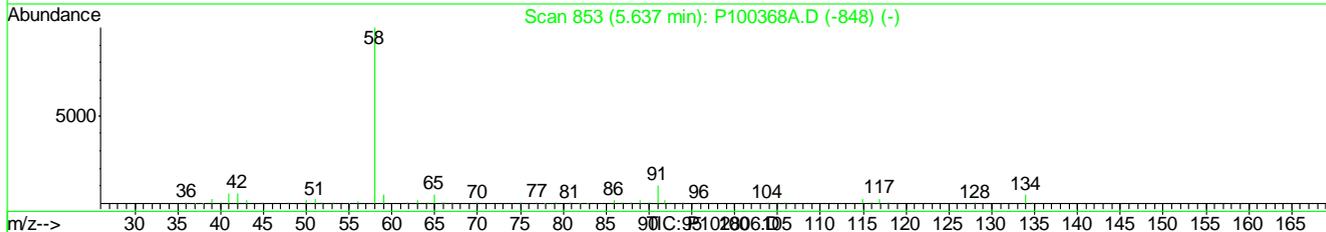
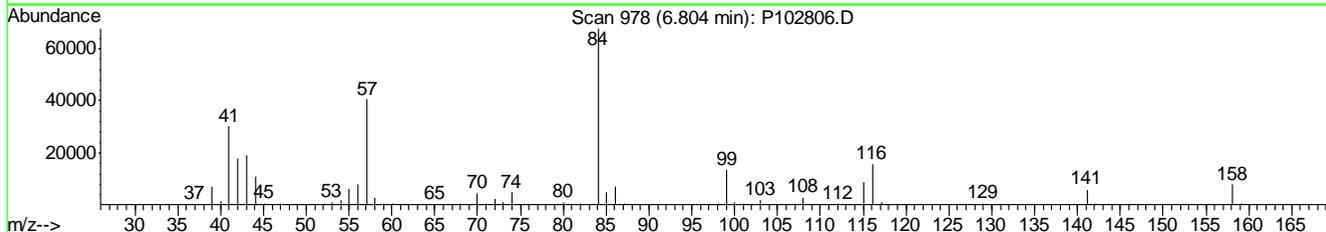
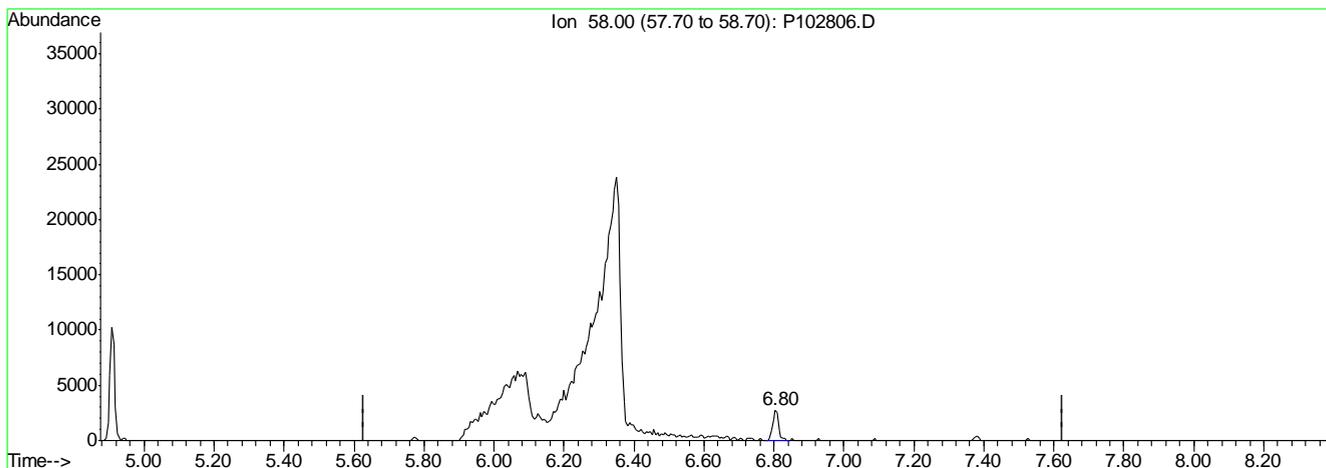
Sample Number: EP4515-IC4515 Method: SW846 8270D
Lab FileID: P102806.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 11:43 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.35	Split peak
p-Phenylenediamine	106-50-3		6.79	Split peak
Kepone	143-50-0		14.96	Split peak

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:44 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.80min 0.40ppm

response 3211

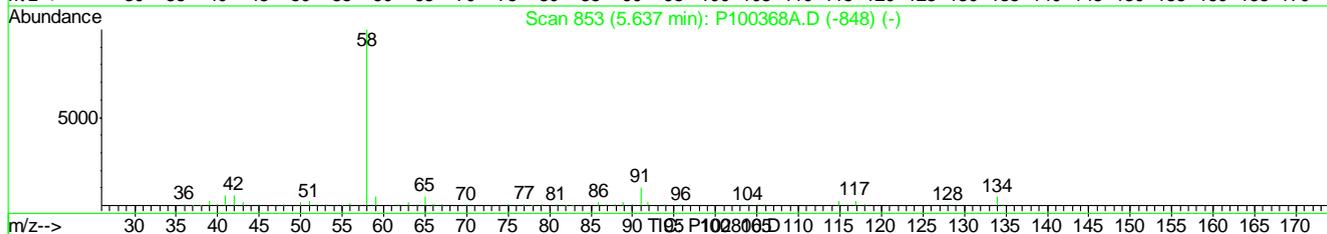
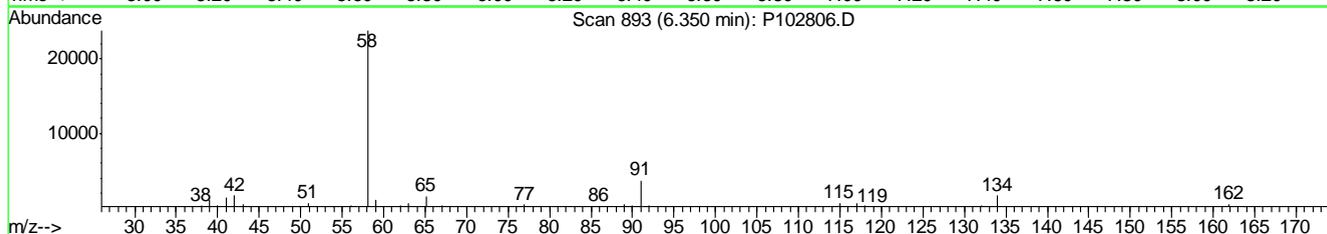
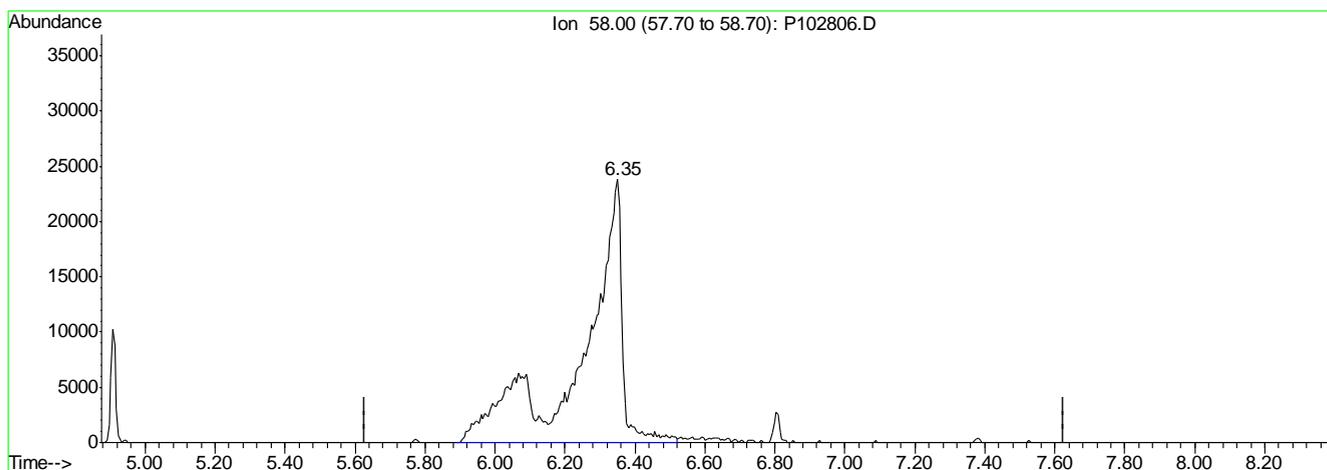
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.29.2
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:45 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.35min 22.62ppm m

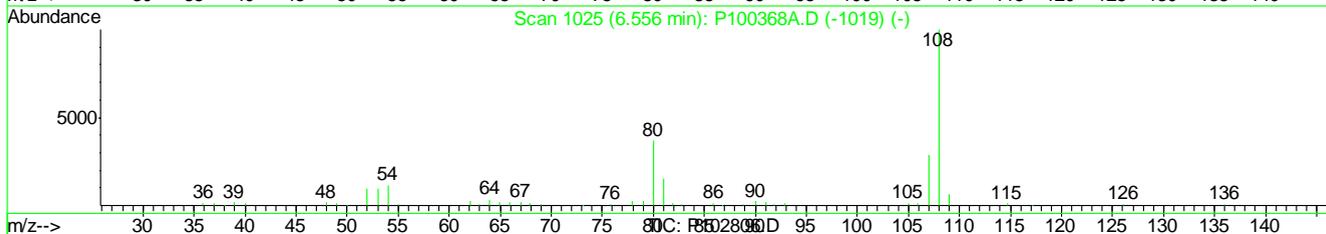
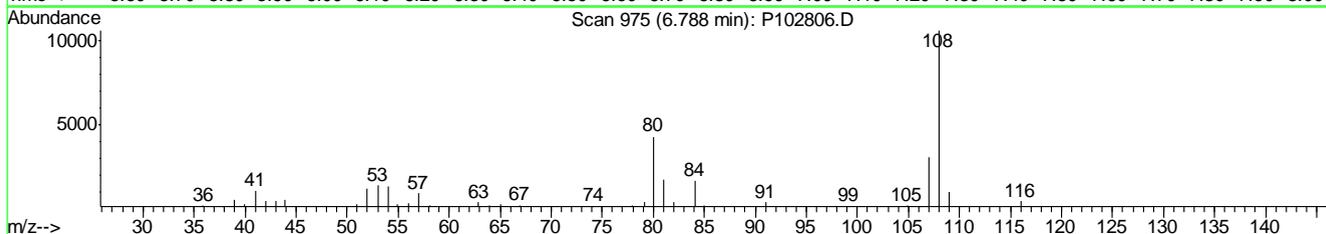
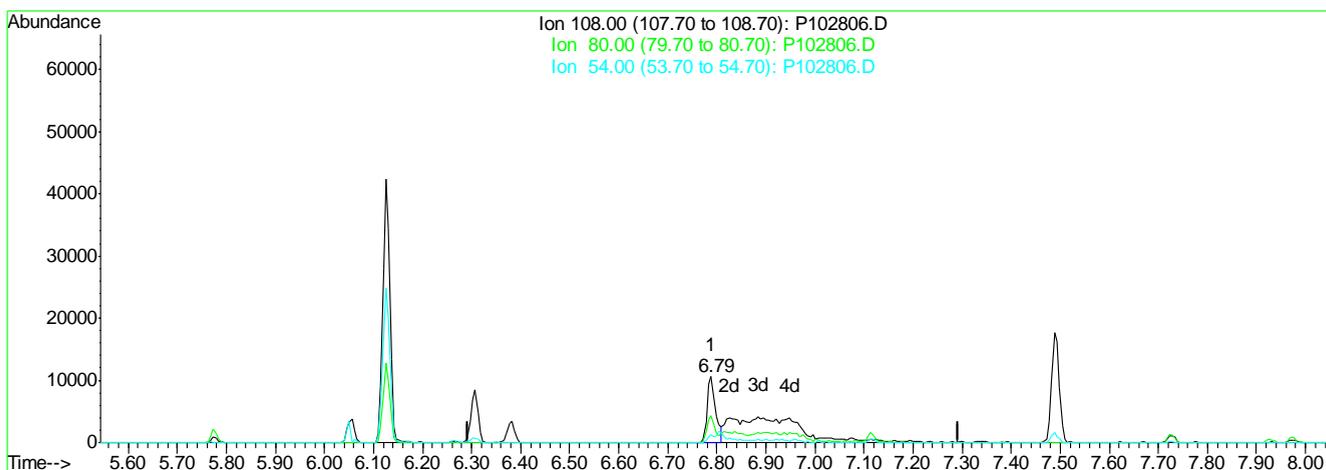
response 180824

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:45 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 6.75ppm

response 12810

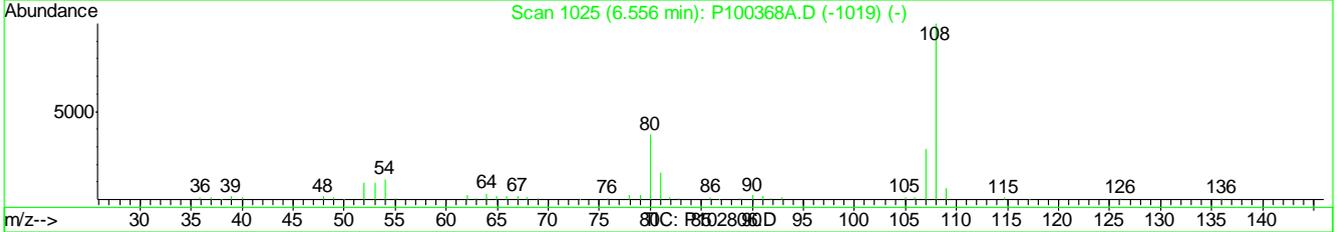
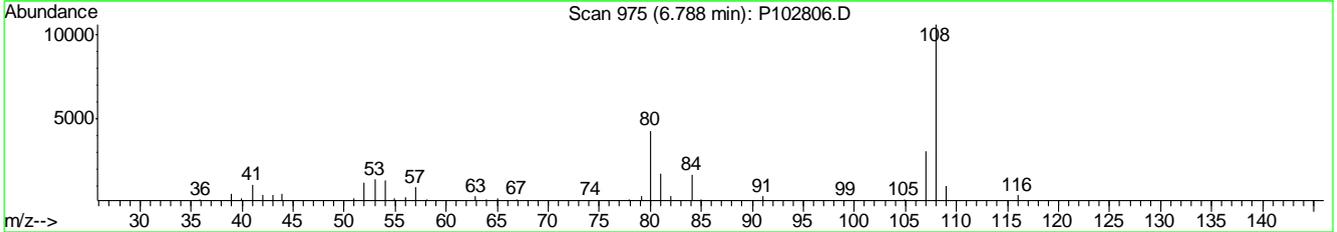
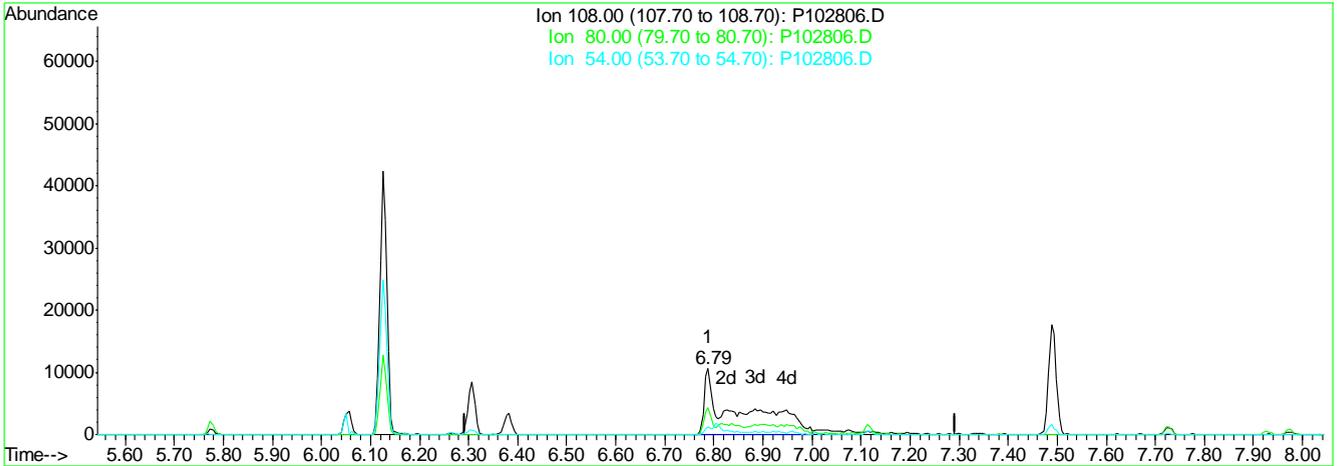
Ion	Exp%	Act%
108.00	100	100
80.00	19.80	38.14#
54.00	1.80	5.75#
0.00	0.00	0.00

9.6.29.4
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:45 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 25.91ppm m

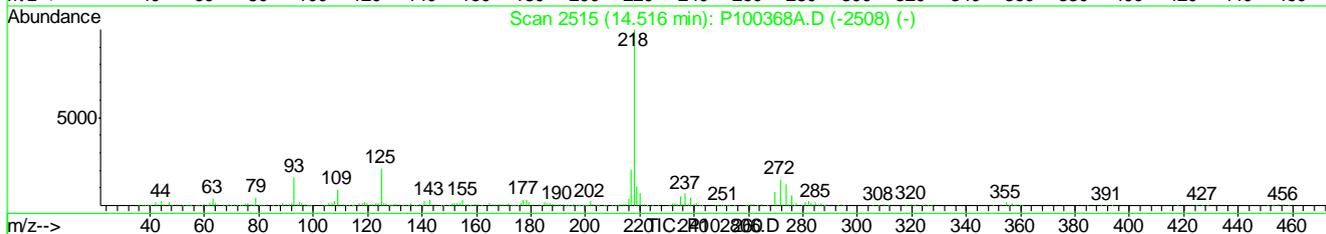
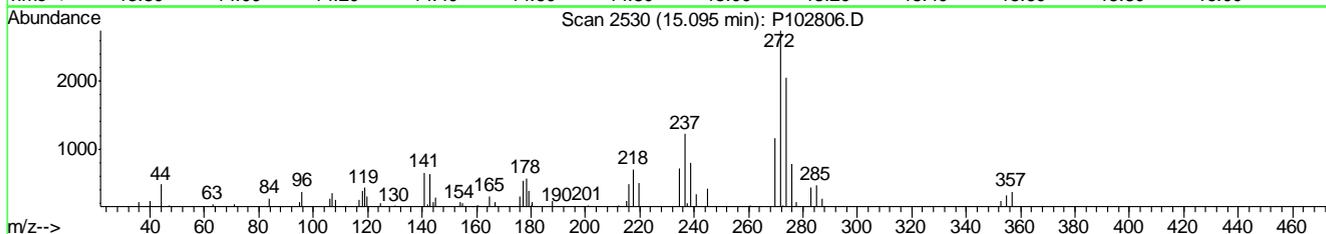
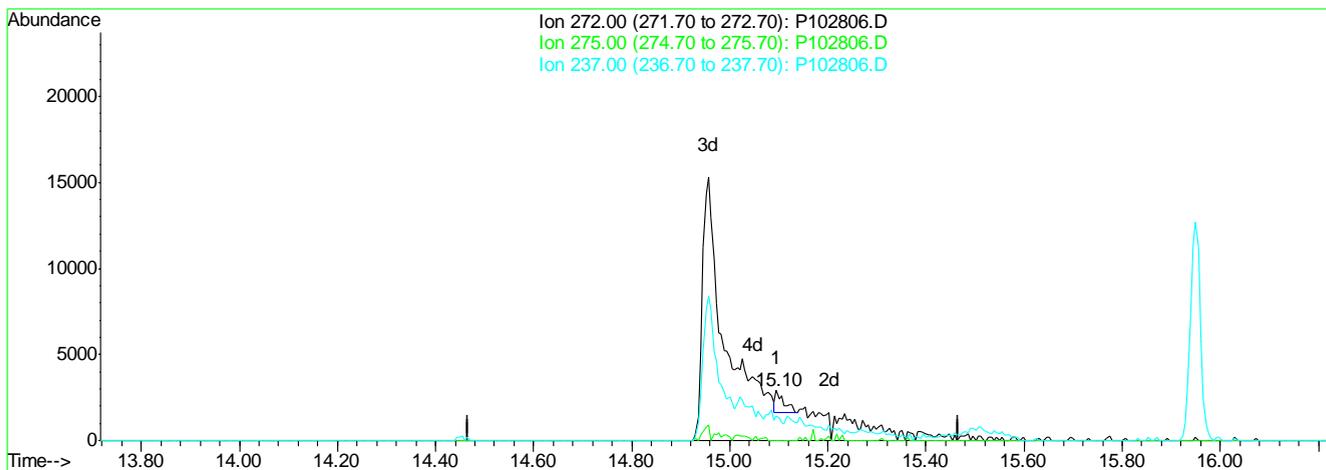
response 49189

Ion	Exp%	Act%
108.00	100	100
80.00	19.80	40.64#
54.00	1.80	12.47#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:45 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

15.10min 13.24ppm

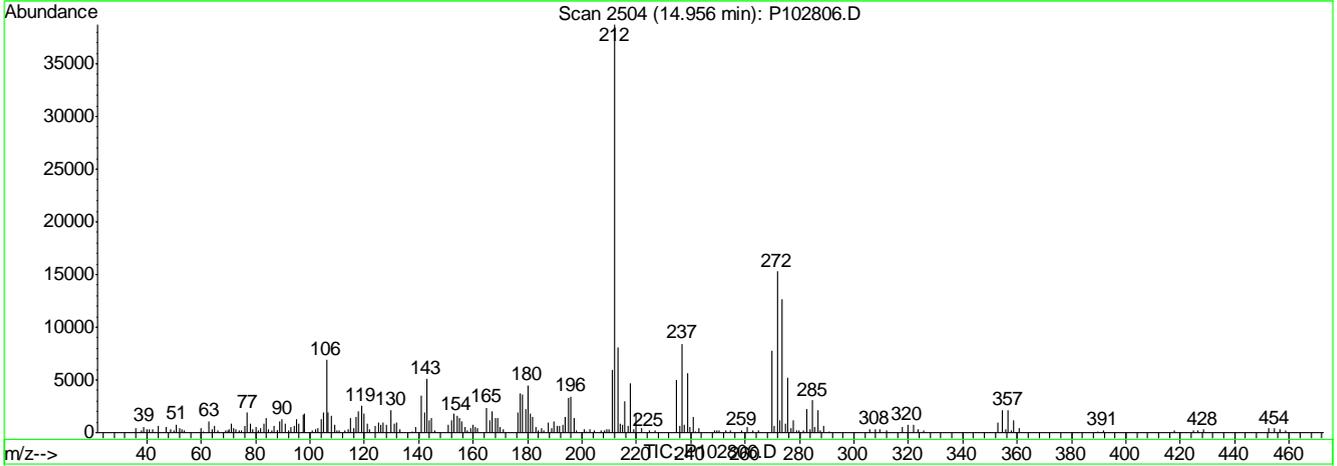
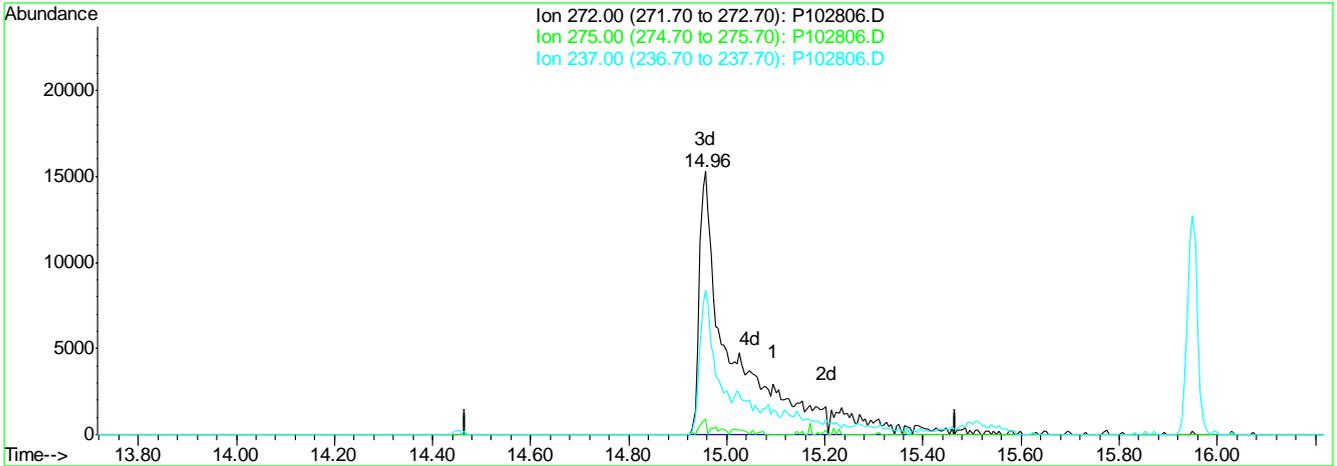
response 1558

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	15.33
237.00	28.40	15.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102806.D Vial: 5
 Acq On : 24 Feb 2016 11:43 am Operator: linseyk
 Sample : ic4515-25 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:48 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:37:08 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.96min 625.26ppm m

response 73592

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	33.98#
237.00	28.40	55.15
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:49:47 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	118813	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	417615	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	237994	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	383616	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	335017	40.00	ppm	0.00
92) Perylene-d12	18.52	264	319502	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	118813	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	417615	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	237994	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	383616	40.00	ppm	-0.01
147) Chrysene-d12A	15.95	240	335017	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	319502	40.00	ppm	-0.01
159) 1,4-Dichlorobenzene-d4b	4.37	152	118813	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	383616	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	335017	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	417615	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	237994	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	417615	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	118813	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	335017	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	335017	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	417615	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
103) 2-Picoline	2.48	93	49478	10.71	ppm	95
104) Pentachloroethane	4.03	167	17316	11.15	ppm	90
105) Methyl methanesulfonate	2.79	80	24405	10.74	ppm	79
106) N-Nitrosodiethylamine	3.17	102	20233	10.24	ppm	96
107) N-Nitrosomethylethylamine	2.55	42	16734	10.79	ppm	84
108) Ethyl methanesulfonate	3.46	79	32881	10.88	ppm	95
109) N-Nitrosopyrrolidine	4.85	41	11926	10.38	ppm	84
110) N-Nitrosomorpholine	4.91	56	19747	13.58	ppm	88
111) o-Toluidine	4.94	106	62120	12.84	ppm #	51
113) O,O,O-Triethyl phosphoroth	5.77	198	16932	11.20	ppm	96
114) N-Nitrosopiperidine	5.32	42	21221	21.15	ppm	79
115) A,A-Dimethylphenethylamine	6.18	58	69311m	8.43	ppm	

(#) = qualifier out of range (m) = manual integration
 P102807.D MP4513.M Wed Feb 24 15:51:55 2016

9.6.30
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:49:47 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

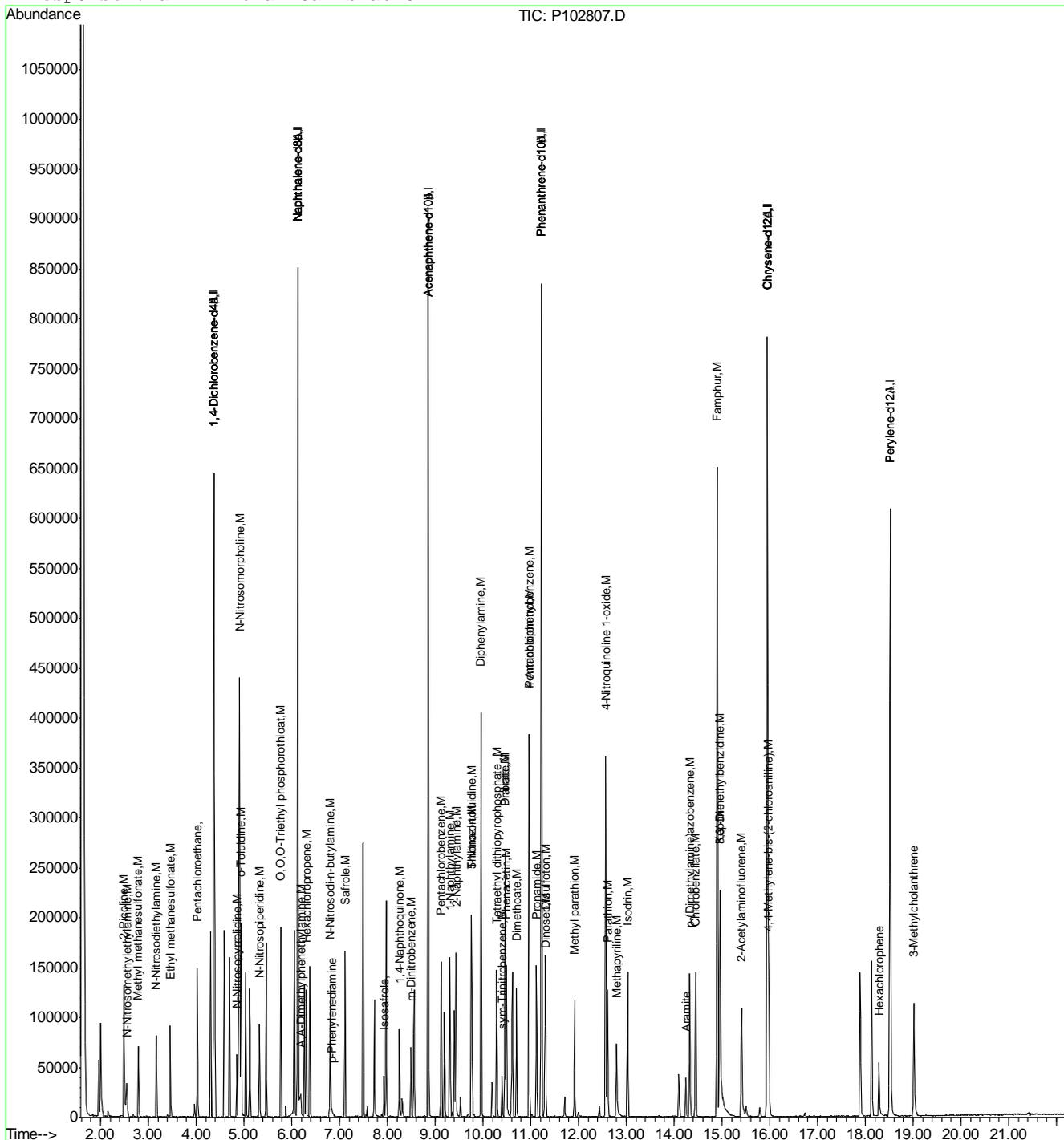
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	22086	10.95	ppm	96
117) N-Nitrosodi-n-butylamine	6.80	84	27216	11.16	ppm	95
118) p-Phenylenediamine	6.84	108	12759m	6.53	ppm	
119) Safrole	7.11	162	27437	10.96	ppm	86
120) Isosafrole	7.93	162	8310	9.78	ppm	# 39
122) Thionazin	9.75	143	10266	11.83	ppm	98
123) Tetraethyl dithiopyrophosp	10.29	322	8820	11.15	ppm	100
124) Phorate	10.46	75	49075	13.17	ppm	100
125) Phenacetin	10.49	108	41353	11.57	ppm	96
126) 1,4-Naphthoquinone	8.25	158	18152	10.88	ppm	92
127) m-Dinitrobenzene	8.50	168	9349	8.76	ppm	85
128) Pentachlorobenzene	9.13	250	26283	11.86	ppm	98
129) 2-Naphthylamine	9.44	143	68070	12.52	ppm	97
130) 1-Naphthylamine	9.30	143	60694	12.52	ppm	93
131) 5-Nitro-o-toluidine	9.76	152	22904	11.58	ppm	95
133) Disulfoton	11.31	88	39198	12.65	ppm	91
134) Dinoseb	11.30	211	10800	7.16	ppm	93
135) Dimethoate	10.70	87	31584	11.99	ppm	75
136) 4-Aminobiphenyl	10.96	169	74419	12.90	ppm	100
137) Methyl parathion	11.92	125	19686	10.50	ppm	82
138) Parathion	12.61	109	16083	12.01	ppm	92
139) Diphenylamine	9.96	169	116923	13.69	ppm	98
140) Isodrin	13.03	193	12434	11.77	ppm	72
141) Diallate	10.46	86	26964	13.02	ppm	86
142) Pentachloronitrobenzene	10.97	295	7246	25.42	ppm	89
143) Pronamide	11.12	173	29912	10.59	ppm	97
144) 4-Nitroquinoline 1-oxide	12.57	190	33617	33.03	ppm	# 54
145) Methapyriline	12.79	58	33593	15.73	ppm	86
146) sym-Trinitrobenzene	10.40	213	3869	6.39	ppm	90
148) Aramite	14.25	185	4959	16.94	ppm	77
149) p-(Dimethylamine)azobenzen	14.33	120	37147	10.90	ppm	88
150) Kepone	14.95	272	35190m	296.32	ppm	
151) Famphur	14.90	218	226680	174.76	ppm	97
152) 2-Acetylaminofluorene	15.41	181	41419	9.57	ppm	92
153) 3,3'-Dimethylbenzidine	14.96	212	47602	50.33	ppm	98
154) Chlorobenzilate	14.45	251	26065	10.23	ppm	# 80
156) 4,4-Methylene-bis-(2-chlor	15.98	266	10767	13.84	ppm	99
157) Hexachlorophene	18.28	196	9096	13.65	ppm	# 99
158) 3-Methylcholanthrene	19.02	252	17310	9.76	ppm	# 75

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102807.D MP4513.M Wed Feb 24 15:51:55 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:51 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration



9.6:30
9

Manual Integration Approval Summary

Sample Number: EP4515-IC4515 Method: SW846 8270D
Lab FileID: P102807.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 12:12 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.18	Split peak
p-Phenylenediamine	106-50-3		6.84	Split peak
Kepone	143-50-0		14.95	Split peak

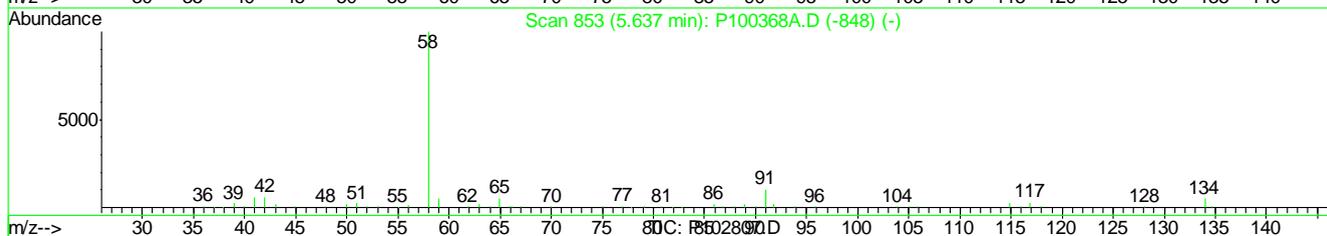
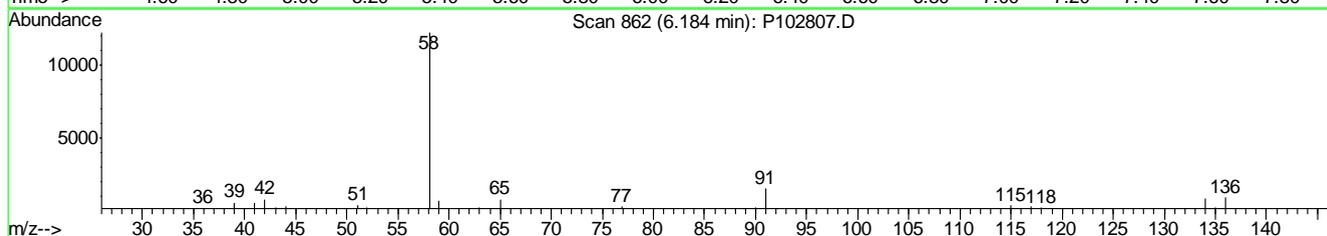
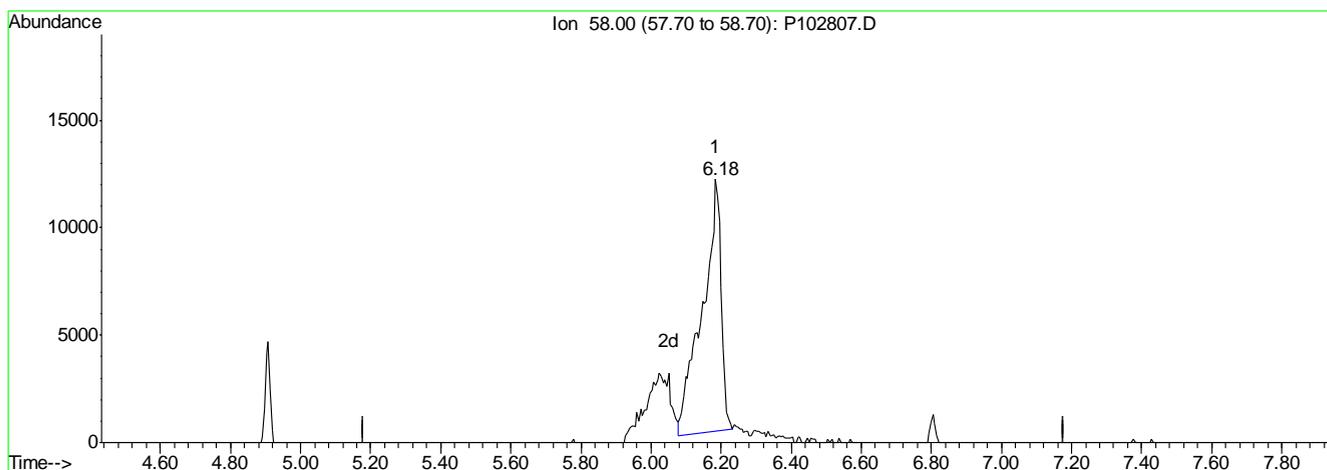
9.6.30.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:50 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.18min 5.33ppm

response 43853

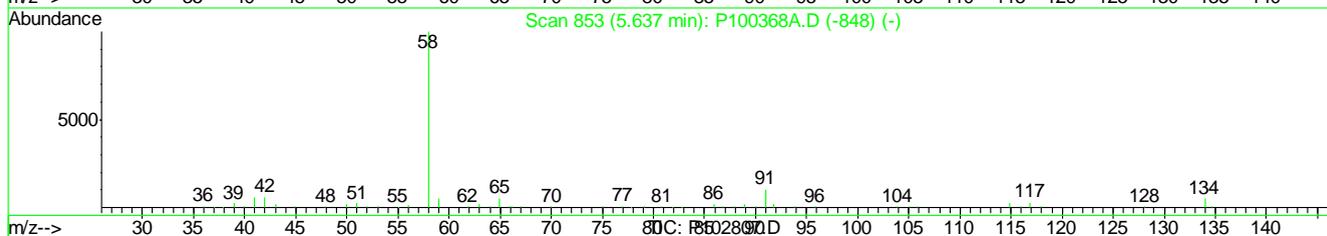
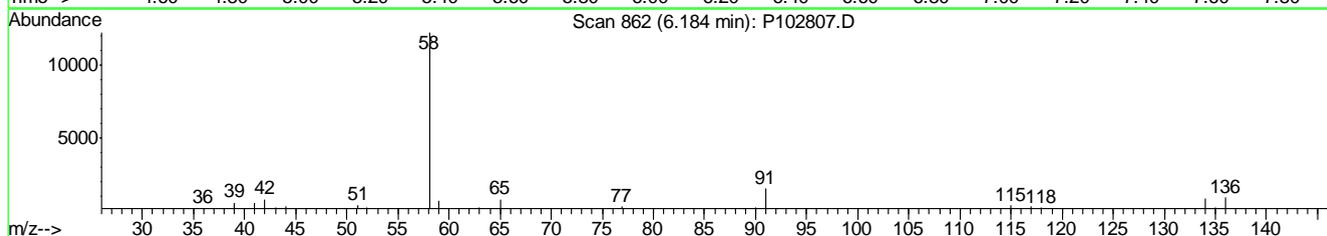
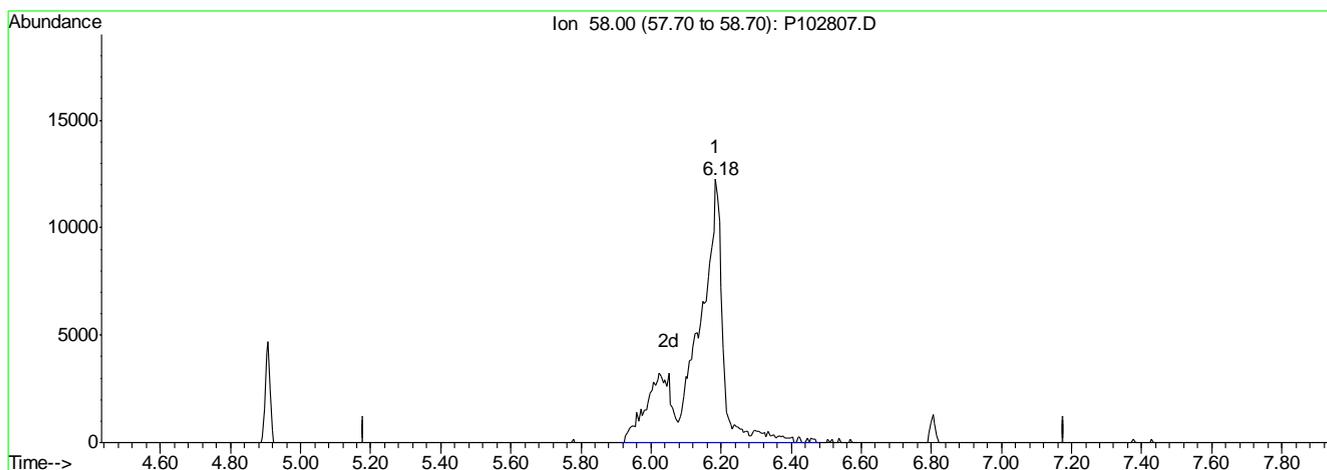
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.30.2
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:50 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.18min 8.43ppm m

response 69311

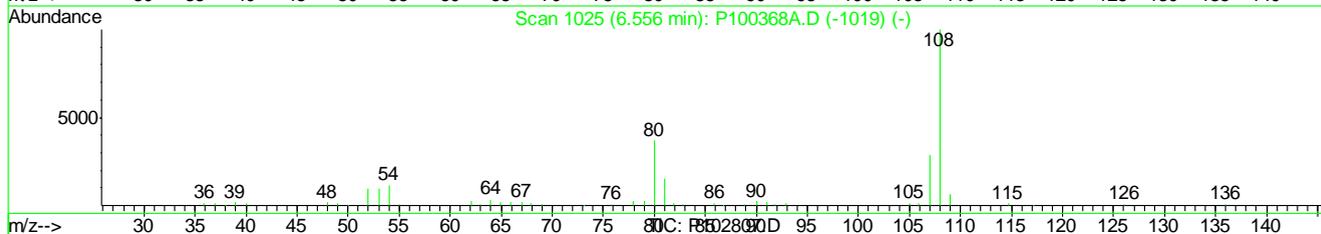
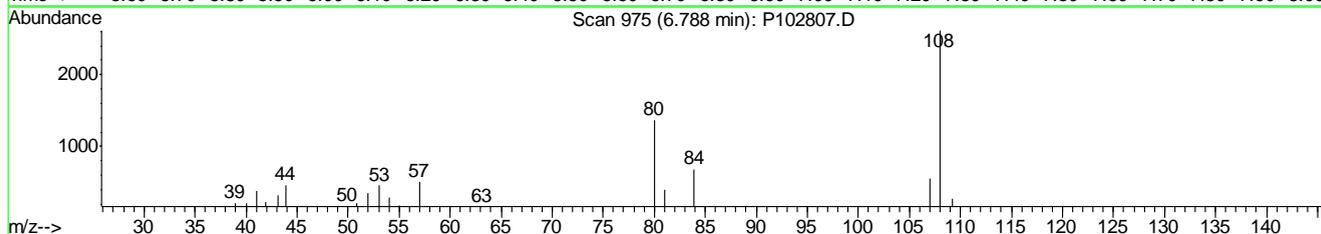
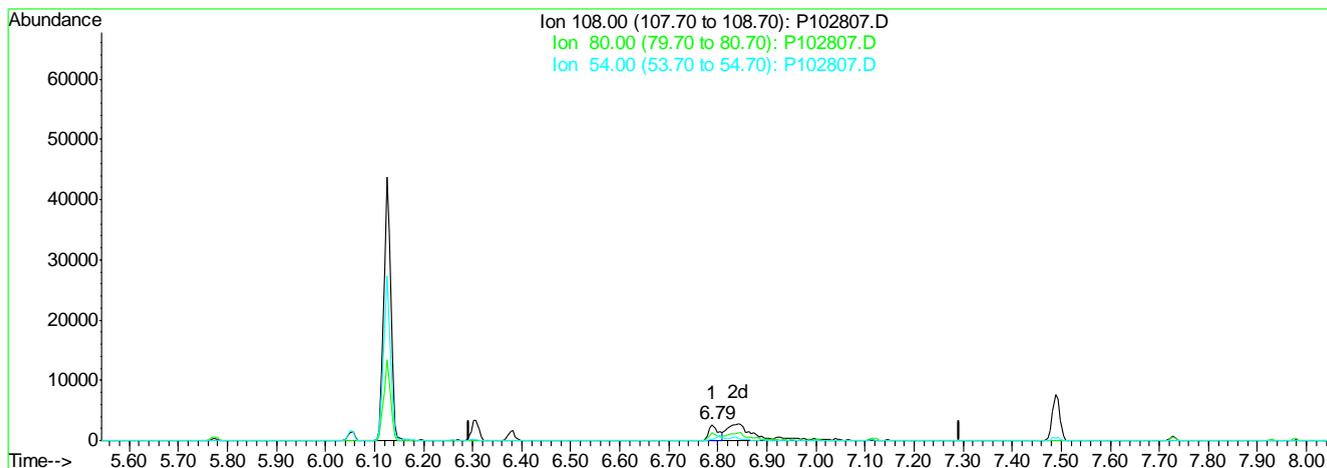
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.30.3
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:50 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 1.91ppm

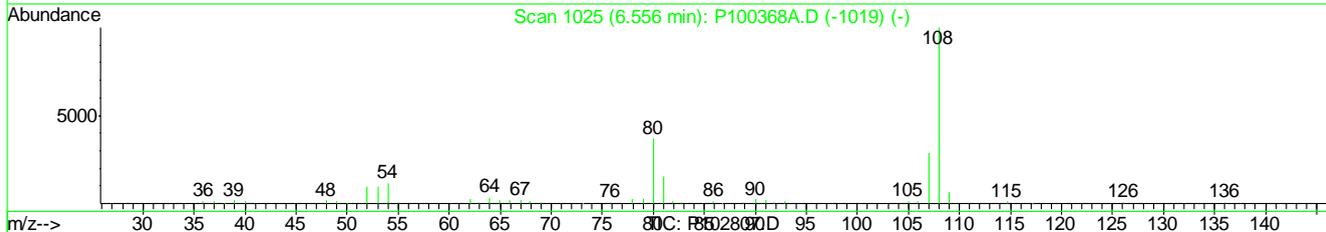
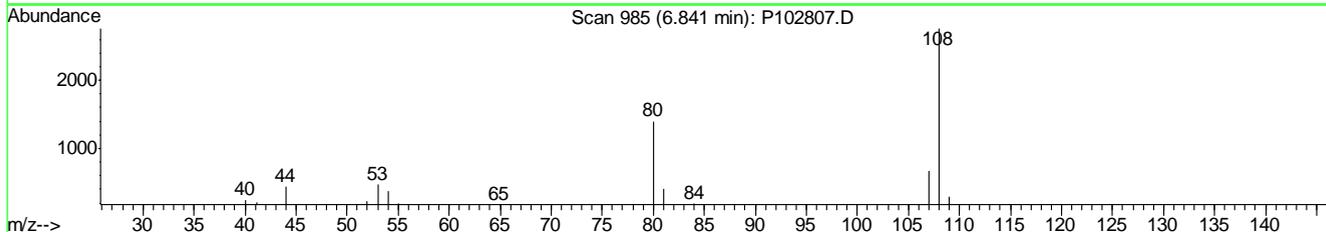
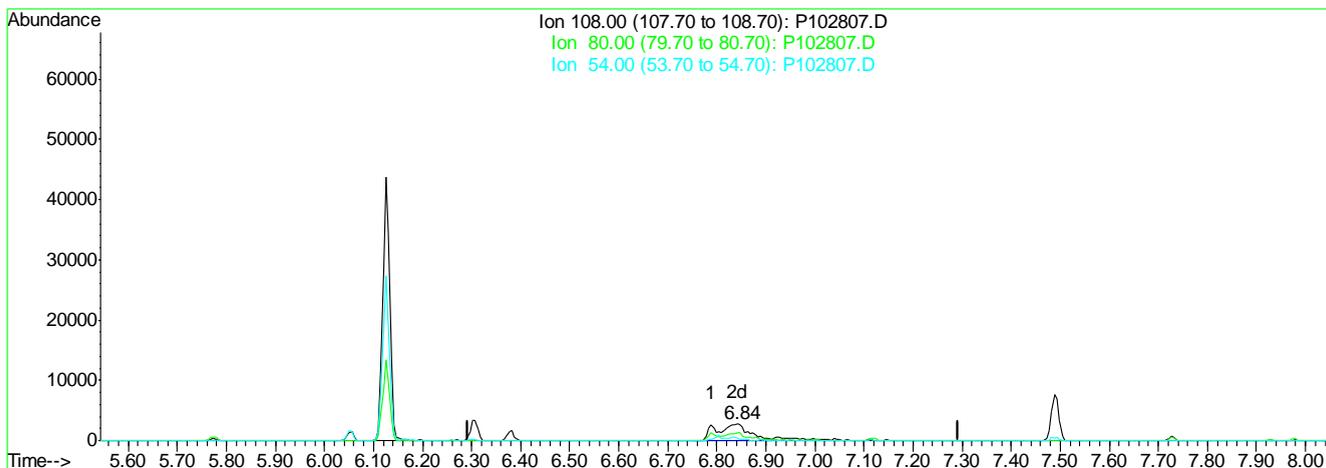
response 3728

Ion	Exp%	Act%
108.00	100	100
80.00	19.80	53.00#
54.00	1.80	3.16#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:50 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.84min 6.53ppm m

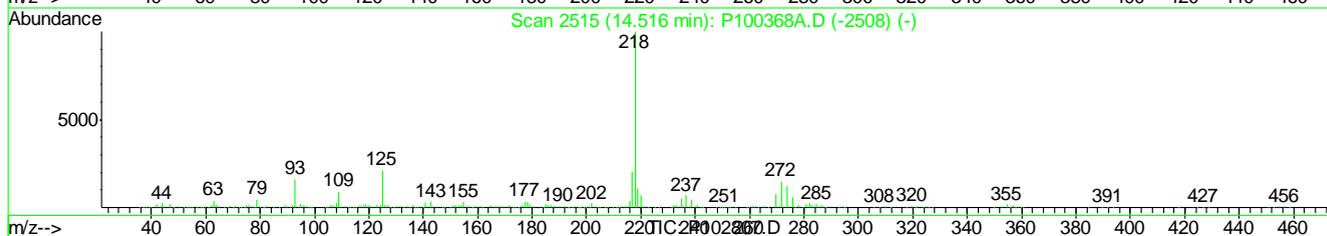
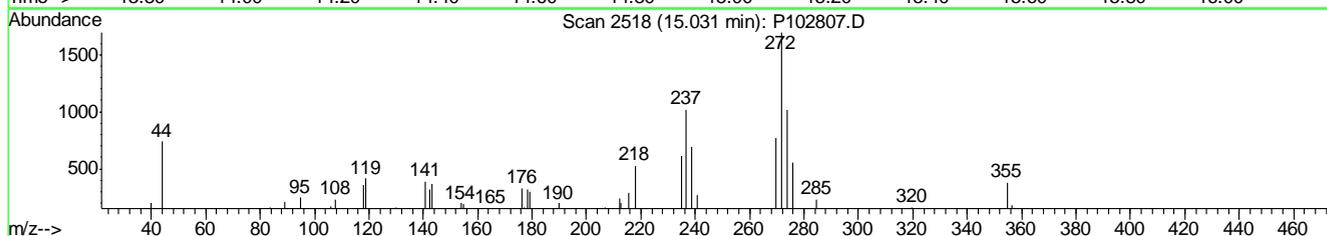
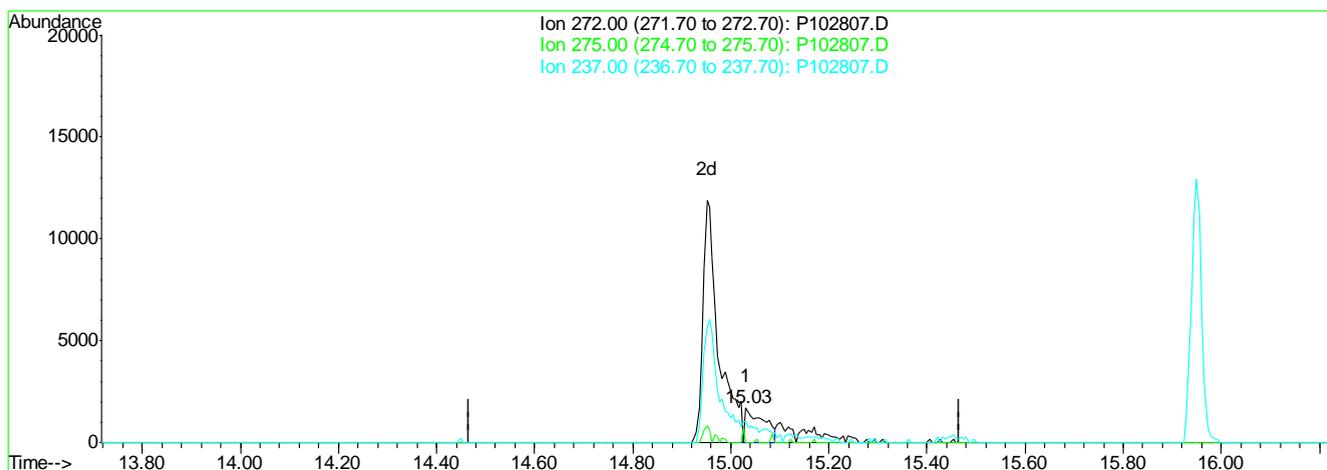
response 12759

Ion	Exp%	Act%
108.00	100	100
80.00	19.80	50.69#
54.00	1.80	13.81#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:50 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

15.03min 36.99ppm

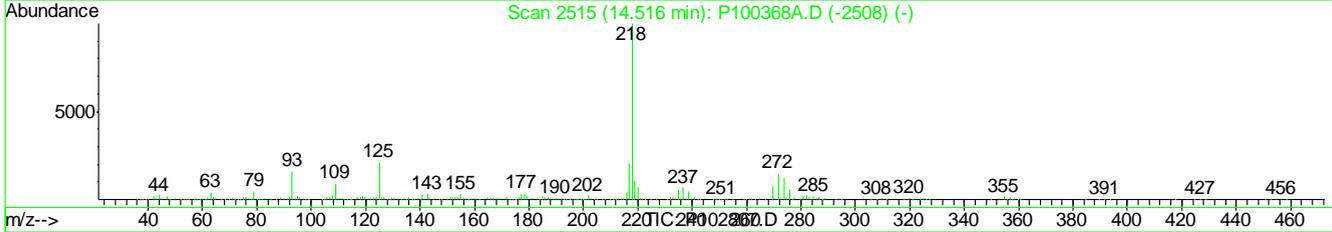
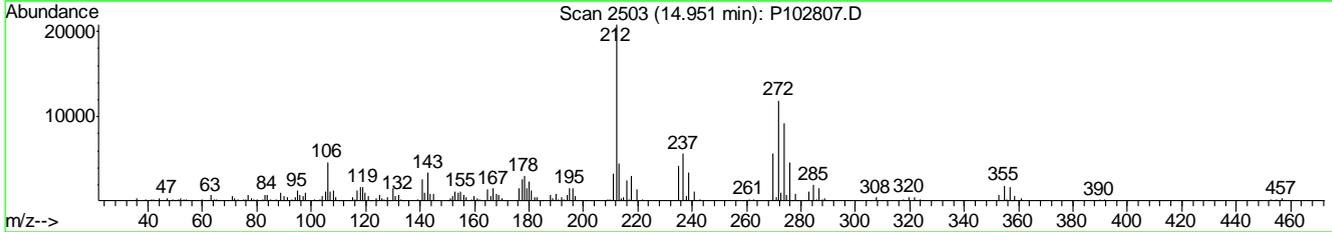
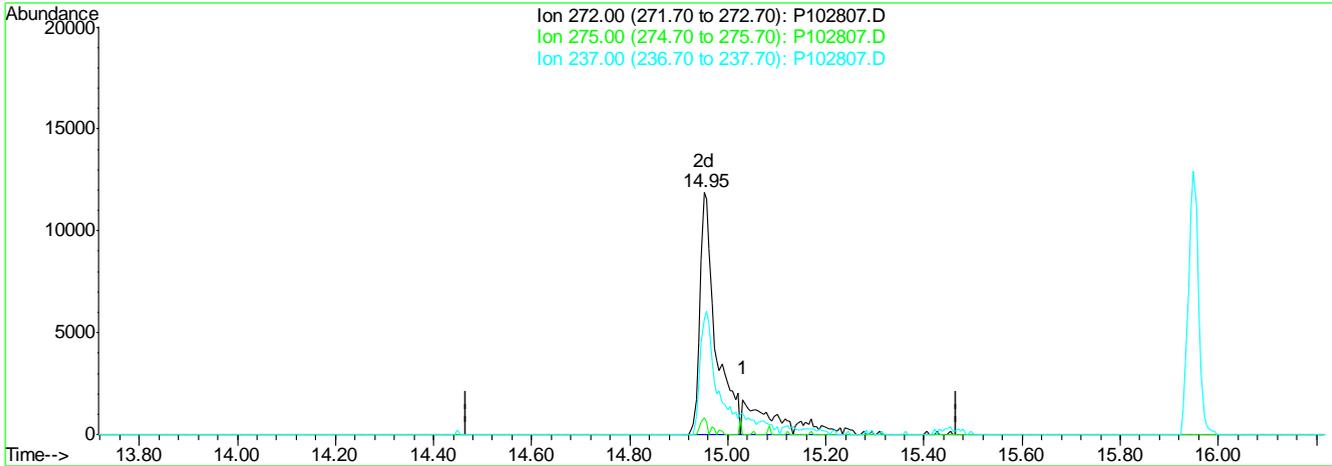
response 4393

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	14.35
237.00	28.40	19.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102807.D Vial: 6
 Acq On : 24 Feb 2016 12:12 pm Operator: linseyk
 Sample : ic4515-10 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:51 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.95min 296.32ppm m

response 35190

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	38.62#
237.00	28.40	47.46
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:52:02 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	112473	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	388483	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	225007	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	358199	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	312591	40.00	ppm	0.00
92) Perylene-d12	18.51	264	301026	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	112473	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	388483	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	225007	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	358199	40.00	ppm	-0.01
147) Chrysene-d12A	15.95	240	312591	40.00	ppm	0.00
155) Perylene-d12A	18.51	264	301026	40.00	ppm	-0.02
159) 1,4-Dichlorobenzene-d4b	4.37	152	112473	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	358199	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	312591	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	388483	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	225007	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	388483	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	112473	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	312591	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	312591	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	388483	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
103) 2-Picoline	2.49	93	25819	5.90	ppm	96
104) Pentachloroethane	4.03	167	8684	5.91	ppm	85
105) Methyl methanesulfonate	2.79	80	12815	5.96	ppm	76
106) N-Nitrosodiethylamine	3.17	102	11063	5.92	ppm	92
107) N-Nitrosomethylethylamine	2.55	42	8791	5.99	ppm	85
108) Ethyl methanesulfonate	3.46	79	16931	5.92	ppm	97
109) N-Nitrosopyrrolidine	4.85	41	6363	5.85	ppm	83
110) N-Nitrosomorpholine	4.91	56	10121	7.35	ppm	84
111) o-Toluidine	4.94	106	32989	7.21	ppm	# 49
113) O,O,O-Triethyl phosphoroth	5.77	198	8407	5.98	ppm	98
114) N-Nitrosopiperidine	5.32	42	10406	11.15	ppm	85
115) A,A-Dimethylphenethylamine	6.10	58	35437m	4.63	ppm	

(#) = qualifier out of range (m) = manual integration
 P102808.D MP4513.M Fri Feb 26 09:40:47 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:52:02 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	11044	5.89	ppm	95
117) N-Nitrosodi-n-butylamine	6.80	84	13589	5.99	ppm	97
118) p-Phenylenediamine	6.80	108	3866	2.13	ppm #	50
119) Safrole	7.11	162	13834	5.94	ppm	84
120) Isosafrole	7.93	162	4120	5.21	ppm #	48
122) Thionazin	9.75	143	4659	5.68	ppm	95
123) Tetraethyl dithiopyrophosp	10.29	322	4163	5.57	ppm	100
124) Phorate	10.46	75	24280	6.89	ppm	100
125) Phenacetin	10.49	108	20121	5.95	ppm	96
126) 1,4-Naphthoquinone	8.25	158	8042	5.10	ppm	91
127) m-Dinitrobenzene	8.50	168	3951	3.92	ppm	85
128) Pentachlorobenzene	9.13	250	13336	6.37	ppm	96
129) 2-Naphthylamine	9.43	143	36719	7.14	ppm	91
130) 1-Naphthylamine	9.30	143	30846	6.73	ppm	93
131) 5-Nitro-o-toluidine	9.76	152	10793	5.77	ppm	93
133) Disulfoton	11.31	88	19670	6.80	ppm	99
134) Dinoseb	11.30	211	3601	2.56	ppm	91
135) Dimethoate	10.70	87	15503	6.30	ppm	82
136) 4-Aminobiphenyl	10.96	169	39165	7.27	ppm	98
137) Methyl parathion	11.92	125	8779	5.01	ppm	88
138) Parathion	12.61	109	7817	6.25	ppm	100
139) Diphenylamine	9.96	169	60309	7.56	ppm	98
140) Isodrin	13.03	193	6143	6.23	ppm	82
141) Diallate	10.46	86	14105	7.29	ppm	88
142) Pentachloronitrobenzene	10.97	295	3438	12.92	ppm	93
143) Pronamide	11.12	173	14184	5.38	ppm	96
144) 4-Nitroquinoline 1-oxide	12.57	190	11251	11.84	ppm #	49
145) Methapyriline	12.79	58	15635	7.84	ppm	94
146) sym-Trinitrobenzene	10.40	213	1214	2.15	ppm	89
148) Aramite	14.25	185	2126	7.78	ppm	90
149) p-(Dimethylamine)azobenzen	14.33	120	16870	5.31	ppm	98
150) Kepone	14.95	272	19157m	172.89	ppm	
151) Famphur	14.90	218	121296m	100.22	ppm	
152) 2-Acetylaminofluorene	15.41	181	16302	4.03	ppm	89
153) 3,3'-Dimethylbenzidine	14.96	212	26336	29.84	ppm	96
154) Chlorobenzilate	14.45	251	12960	5.45	ppm	86
156) 4,4-Methylene-bis-(2-chlor	15.98	266	5463	7.45	ppm	93
157) Hexachlorophene	18.28	196	2262	3.60	ppm #	85
158) 3-Methylcholanthrene	19.02	252	7801	4.67	ppm #	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102808.D MP4513.M Fri Feb 26 09:40:47 2016

Manual Integration Approval Summary

Sample Number: EP4515-IC4515 Method: SW846 8270D
Lab FileID: P102808.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 12:42 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.10	Split peak
Famphur	52-85-7		14.90	Split peak
Kepone	143-50-0		14.95	Split peak

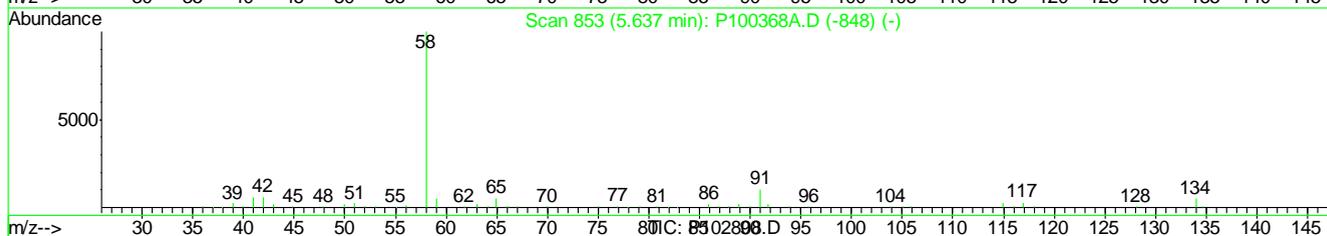
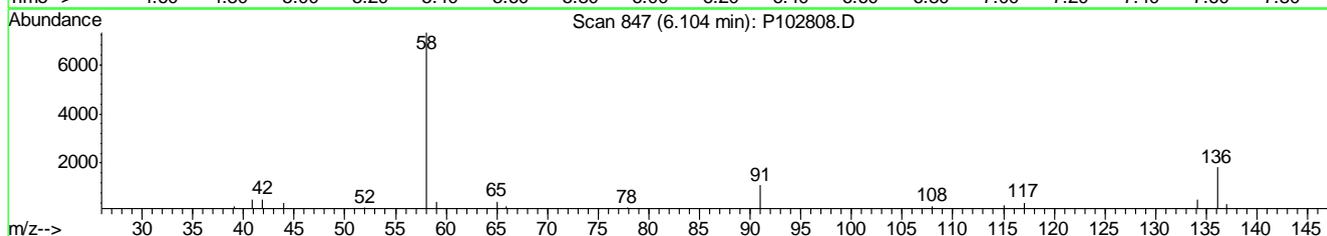
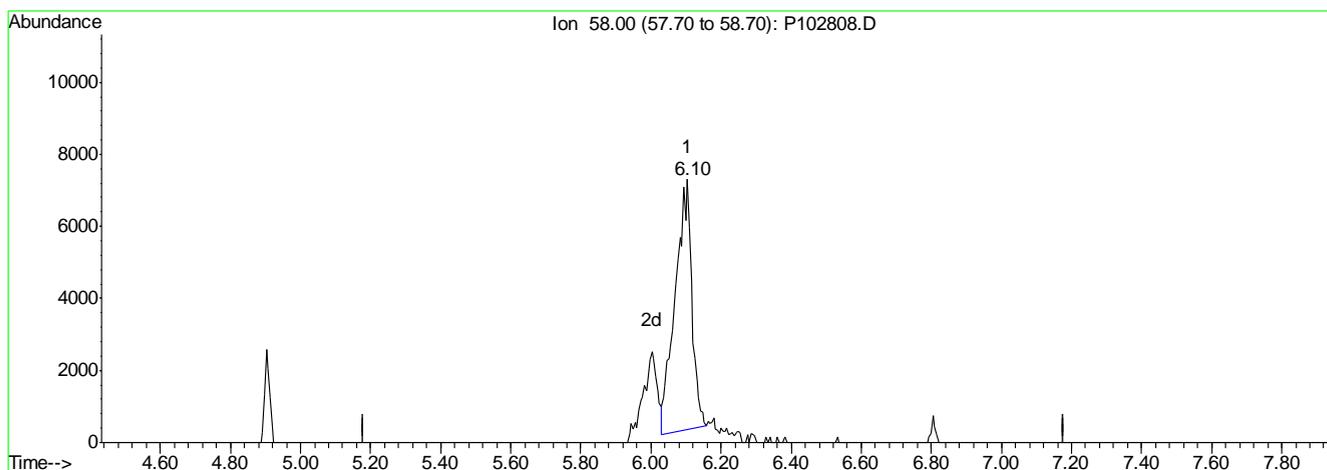
9.6.31.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:52 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.10min 3.00ppm

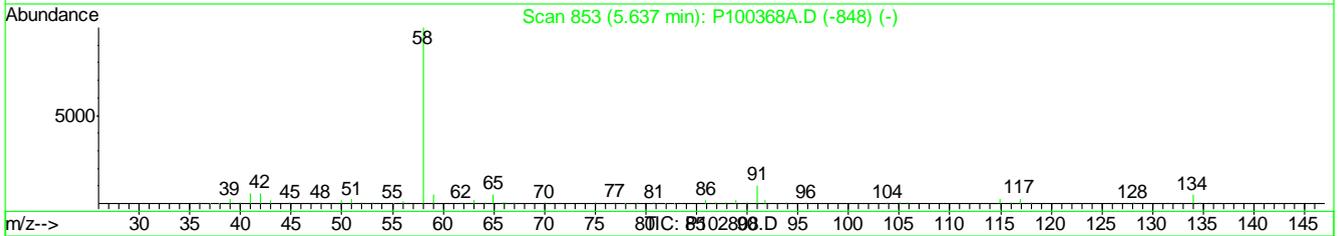
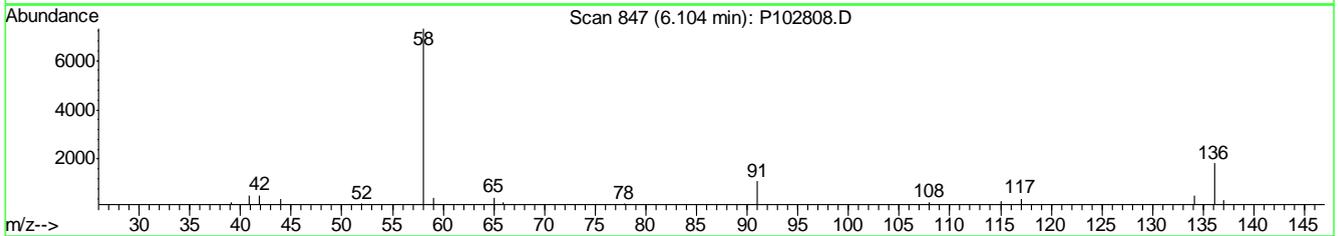
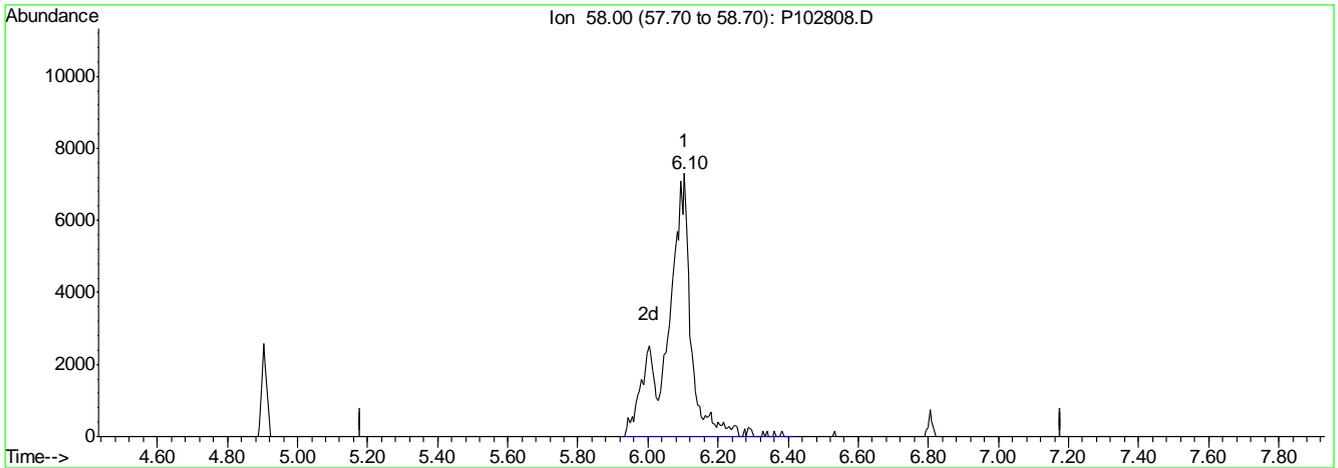
response 22968

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:52 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.10min 4.63ppm m

response 35437

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

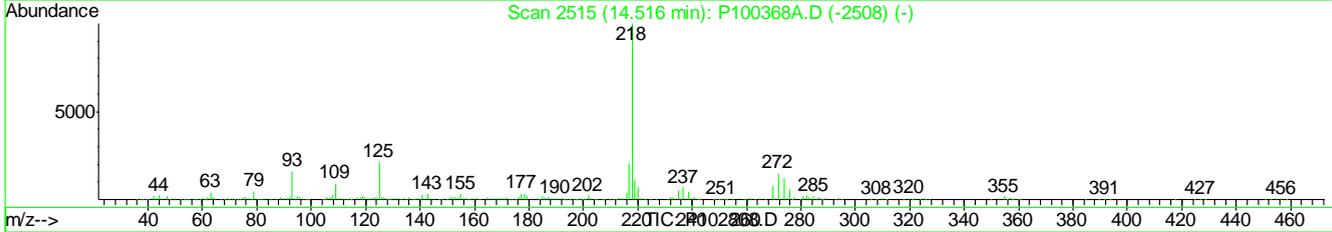
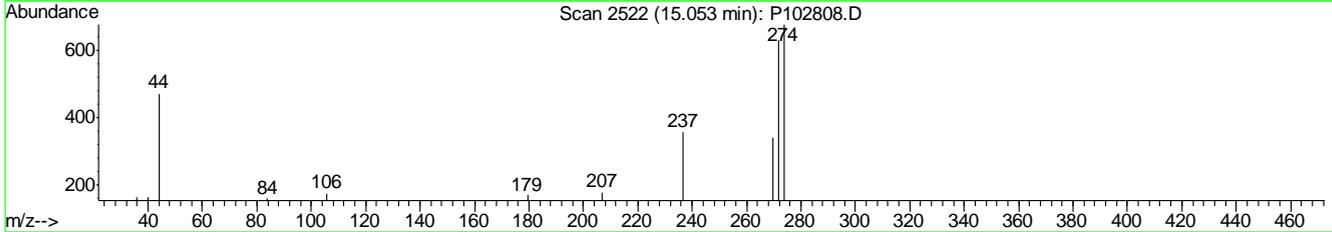
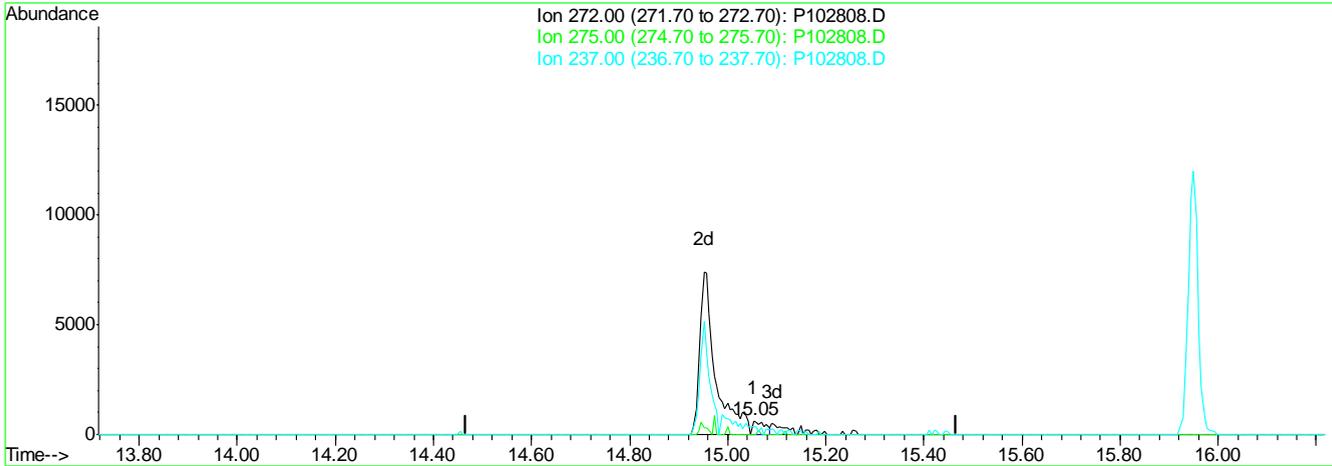
9.6.31.3

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:52 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

15.05min 9.61ppm

response 1065

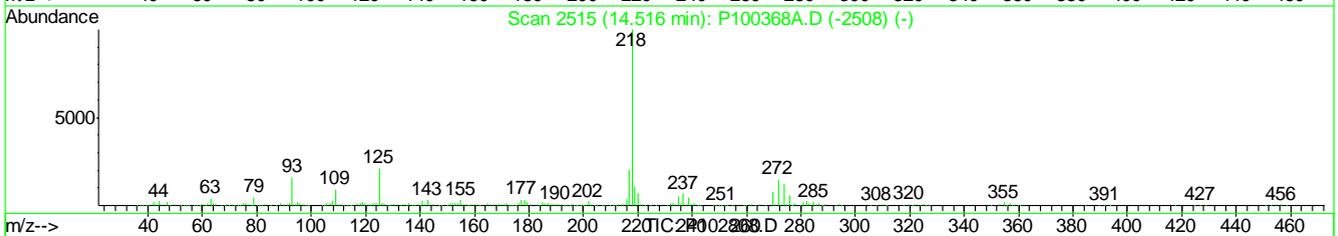
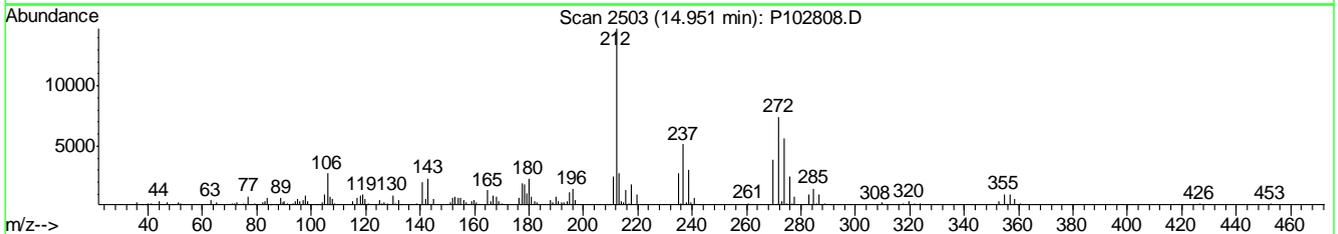
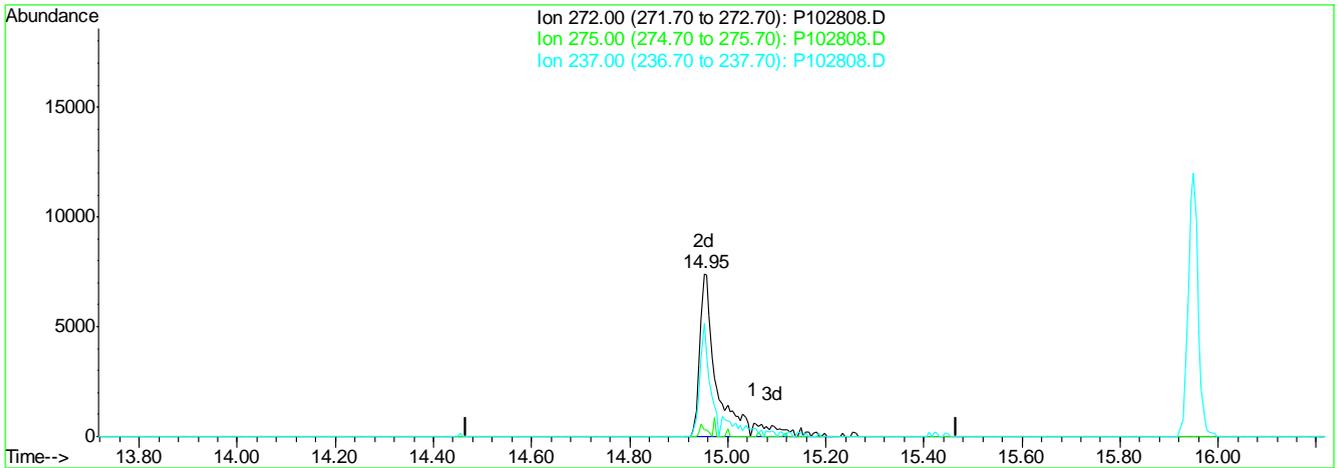
Ion	Exp%	Act%
272.00	100	100
275.00	3.50	0.00
237.00	28.40	17.27
0.00	0.00	0.00

9.6.31.4
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:53 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.95min 172.89ppm m

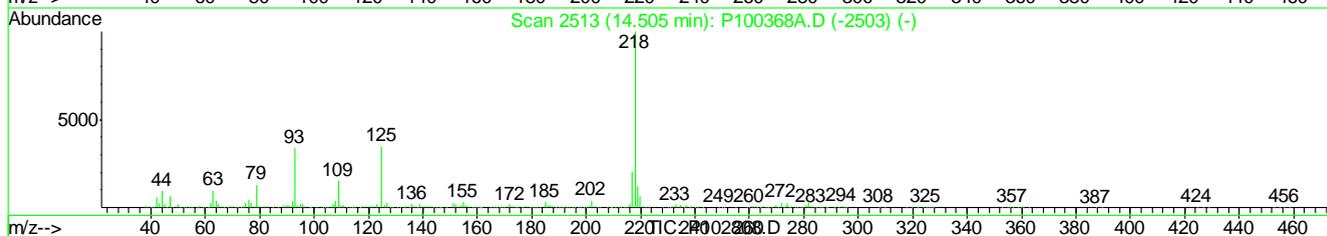
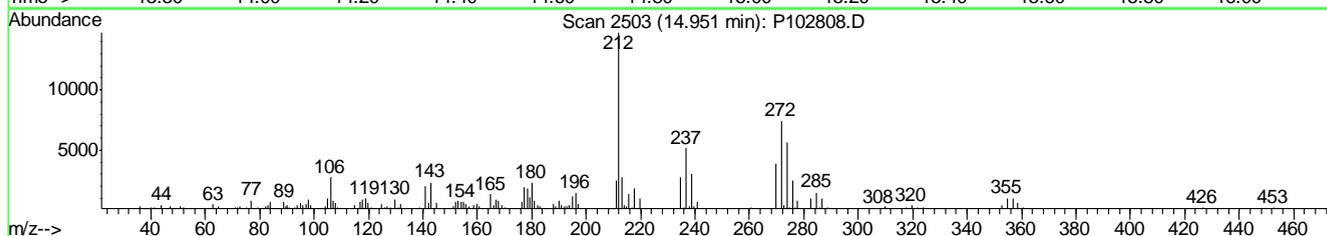
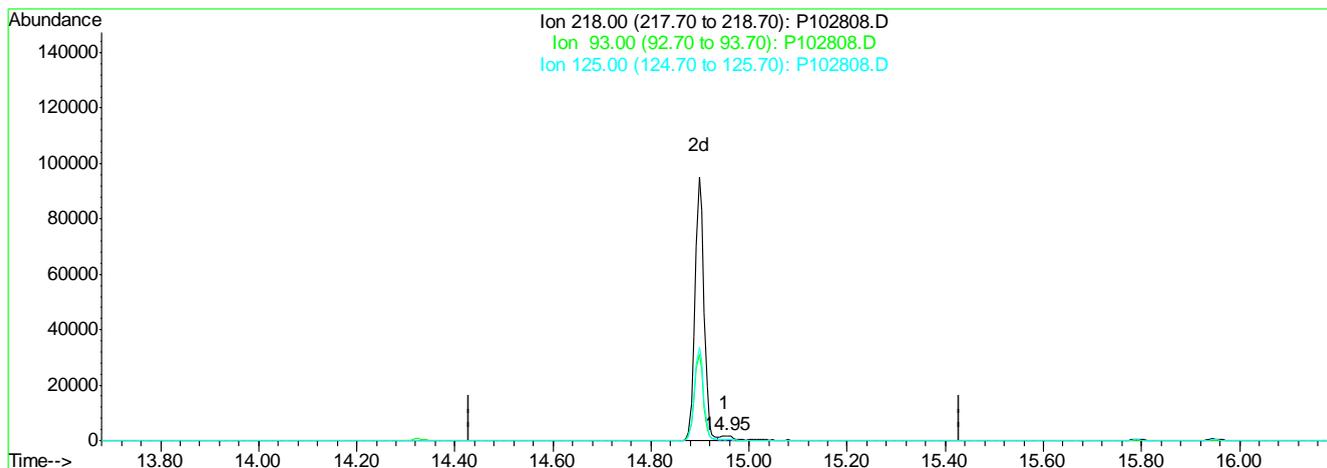
response 19157

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	3.87
237.00	28.40	69.36#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:53 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(151) Famphur (M)

14.95min 2.88ppm

response 3481

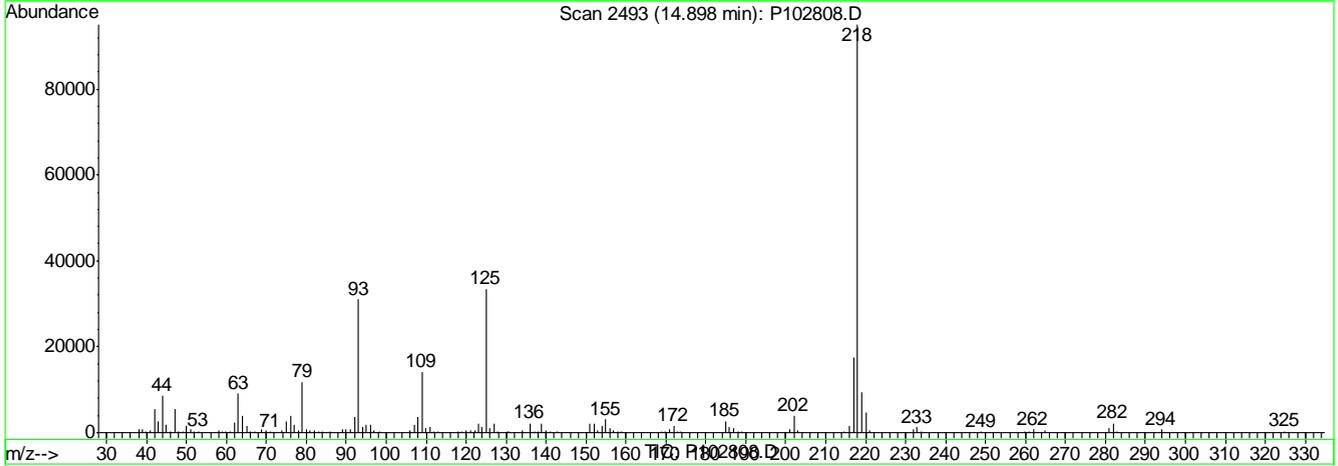
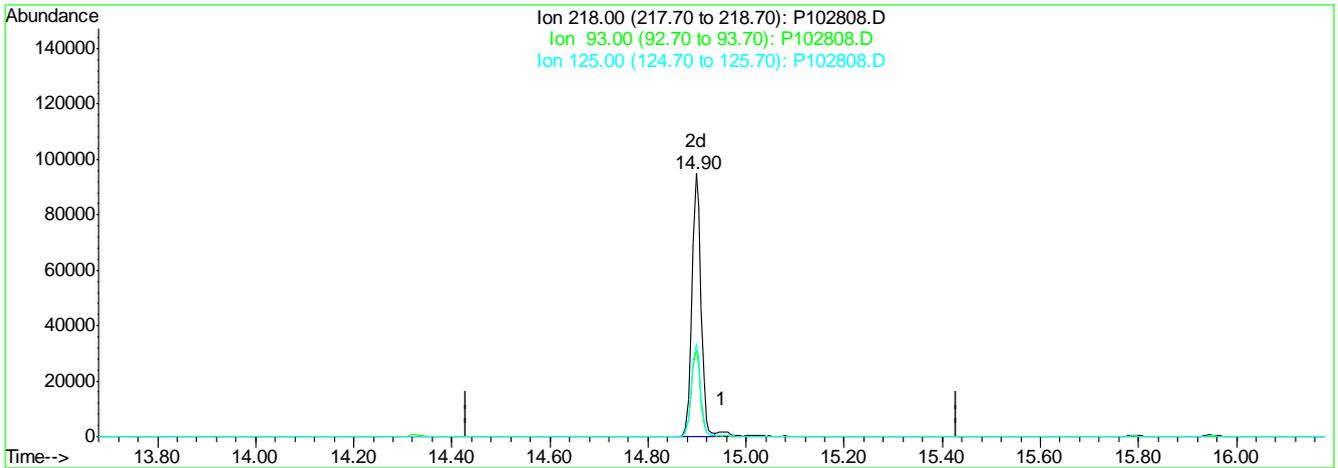
Ion	Exp%	Act%
218.00	100	100
93.00	35.60	6.54
125.00	35.50	26.97
0.00	0.00	0.00

9.6.31.6
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102808.D Vial: 7
 Acq On : 24 Feb 2016 12:42 pm Operator: linseyk
 Sample : ic4515-5 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:54 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(151) Famphur (M)

14.90min 100.22ppm m

response 121296

Ion	Exp%	Act%
218.00	100	100
93.00	35.60	32.62
125.00	35.50	35.24
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:55:08 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	114977	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	406209	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	227986	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	370043	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	321591	40.00	ppm	0.00
92) Perylene-d12	18.51	264	305782	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	114977	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	406209	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	227986	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	370043	40.00	ppm	-0.01
147) Chrysene-d12A	15.95	240	321591	40.00	ppm	0.00
155) Perylene-d12A	18.51	264	305782	40.00	ppm	-0.02
159) 1,4-Dichlorobenzene-d4b	4.37	152	114977	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	370043	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	321591	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	406209	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	227986	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	406209	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	114977	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	321591	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	321591	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	406209	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
103) 2-Picoline	2.49	93	11317	2.53	ppm	93
104) Pentachloroethane	4.03	167	3523	2.34	ppm	94
105) Methyl methanesulfonate	2.80	80	5221	2.38	ppm	83
106) N-Nitrosodiethylamine	3.17	102	3990	2.09	ppm	78
107) N-Nitrosomethylethylamine	2.55	42	3649	2.43	ppm	76
108) Ethyl methanesulfonate	3.47	79	6460	2.21	ppm	96
109) N-Nitrosopyrrolidine	4.85	41	2104	1.89	ppm	95
110) N-Nitrosomorpholine	4.91	56	4793	3.41	ppm	86
111) o-Toluidine	4.94	106	13688	2.92	ppm	# 53
113) O,O,O-Triethyl phosphoroth	5.77	198	3151	2.14	ppm	86
114) N-Nitrosopiperidine	5.32	42	3951	4.05	ppm	89
115) A,A-Dimethylphenethylamine	6.03	58	13373m	1.67	ppm	

(#) = qualifier out of range (m) = manual integration

P102809.D MP4513.M Wed Feb 24 16:23:39 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:55:08 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

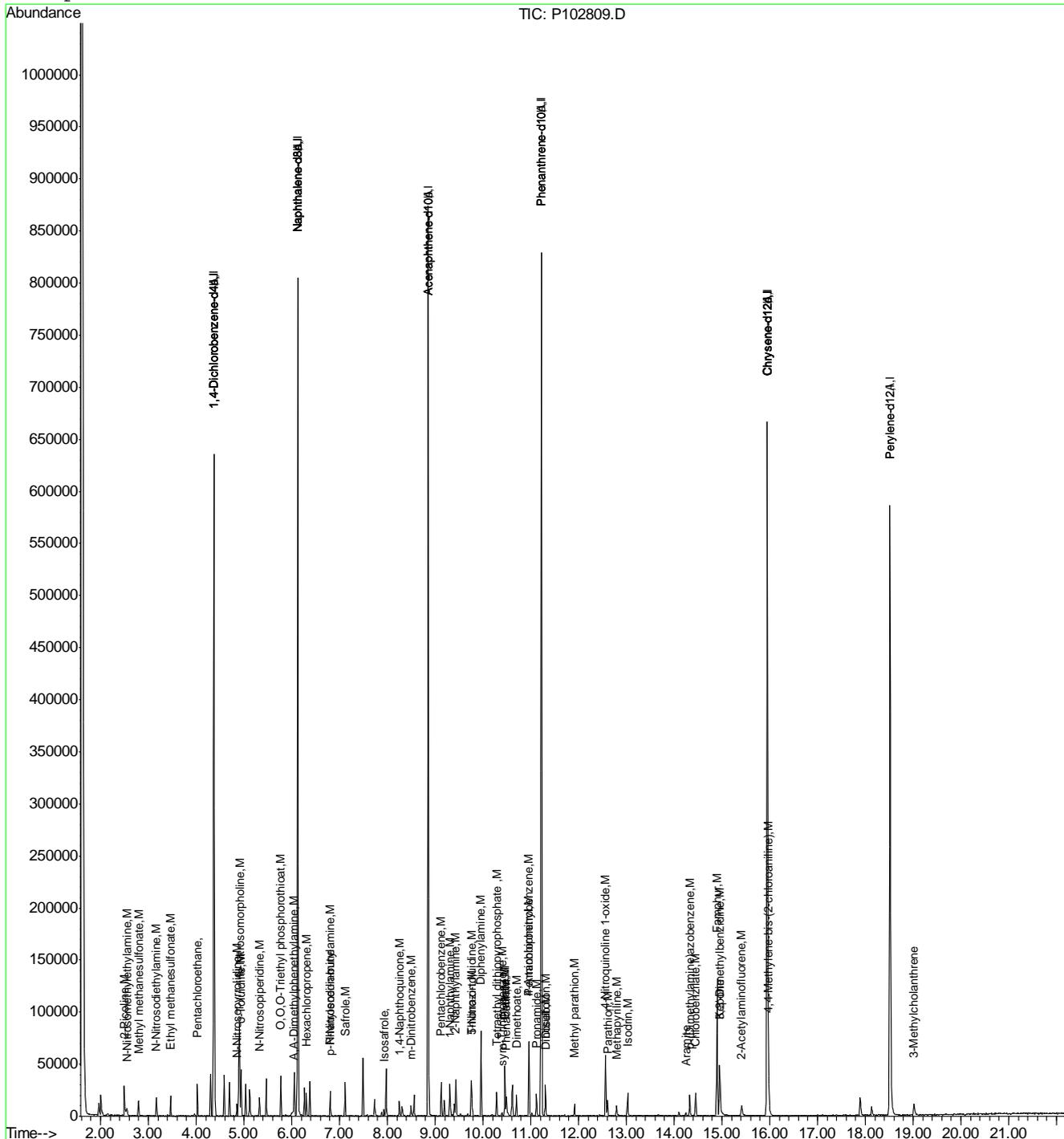
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	3809	1.94	ppm	92
117) N-Nitrosodi-n-butylamine	6.80	84	5061	2.13	ppm	94
118) p-Phenylenediamine	6.79	108	507	0.27	ppm #	42
119) Safrole	7.12	162	5620	2.31	ppm	97
120) Isosafrole	7.93	162	1473	1.78	ppm #	45
122) Thionazin	9.76	143	2041	2.46	ppm	89
123) Tetraethyl dithiopyrophosp	10.29	322	1258	1.66	ppm	100
124) Phorate	10.46	75	8978	2.52	ppm	100
125) Phenacetin	10.49	108	6614	1.93	ppm	95
126) 1,4-Naphthoquinone	8.25	158	2833	1.77	ppm	82
127) m-Dinitrobenzene	8.50	168	1178	1.15	ppm	79
128) Pentachlorobenzene	9.13	250	5488	2.59	ppm	96
129) 2-Naphthylamine	9.44	143	14930	2.87	ppm	94
130) 1-Naphthylamine	9.30	143	11431	2.46	ppm	90
131) 5-Nitro-o-toluidine	9.76	152	3711	1.96	ppm	92
133) Disulfoton	11.31	88	7338	2.46	ppm	95
134) Dinoseb	11.30	211	807	0.55	ppm	89
135) Dimethoate	10.70	87	5657	2.23	ppm	80
136) 4-Aminobiphenyl	10.96	169	15496	2.79	ppm	95
137) Methyl parathion	11.92	125	2529	1.40	ppm #	68
138) Parathion	12.61	109	2213	1.71	ppm	77
139) Diphenylamine	9.96	169	23857	2.90	ppm	96
140) Isodrin	13.02	193	2287	2.24	ppm	98
141) Diallate	10.45	86	5612m	2.81	ppm	
142) Pentachloronitrobenzene	10.97	295	1253	4.56	ppm	90
143) Pronamide	11.12	173	4849	1.78	ppm	90
144) 4-Nitroquinoline 1-oxide	12.57	190	2594	2.64	ppm #	52
145) Methapyriline	12.80	58	4501	2.18	ppm	97
146) sym-Trinitrobenzene	10.39	213	295	0.50	ppm	97
148) Aramite	14.25	185	411	1.46	ppm	65
149) p-(Dimethylamine)azobenzen	14.33	120	5234	1.60	ppm	99
150) Kepone	14.95	272	7382m	64.76	ppm	
151) Famphur	14.90	218	44086	35.41	ppm	95
152) 2-Acetylaminofluorene	15.41	181	4949	1.19	ppm	89
153) 3,3'-Dimethylbenzidine	14.96	212	8399	9.25	ppm	94
154) Chlorobenzilate	14.45	251	4290	1.75	ppm	86
156) 4,4-Methylene-bis-(2-chlor	15.98	266	1889	2.54	ppm #	54
158) 3-Methylcholanthrene	19.02	252	2479	1.46	ppm #	53

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102809.D MP4513.M Wed Feb 24 16:23:39 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:23 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:22:21 2016
 Response via : Initial Calibration



9.6-32
9

Manual Integration Approval Summary

Sample Number: EP4515-IC4515 Method: SW846 8270D
Lab FileID: P102809.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 13:11 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.03	Split peak
Diallate	2303-16-4		10.45	Poor instrument integration
Kepon	143-50-0		14.95	Split peak

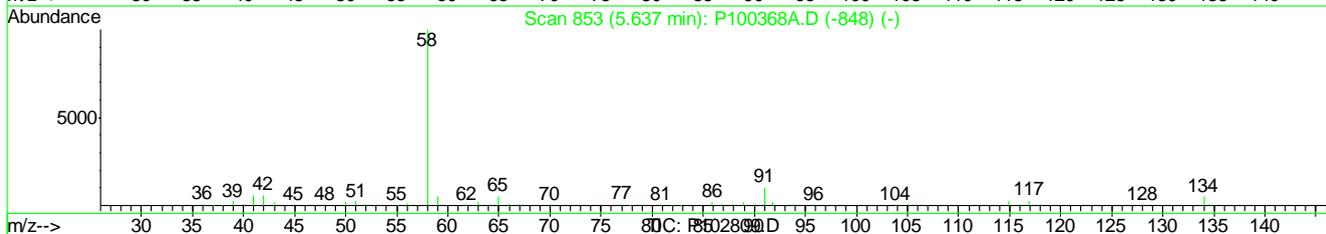
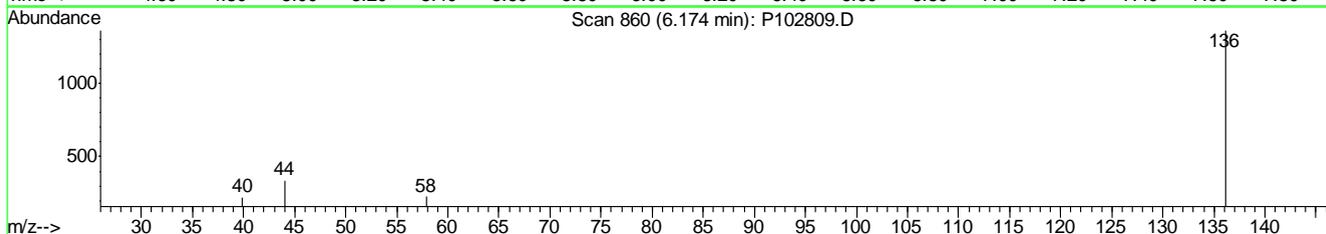
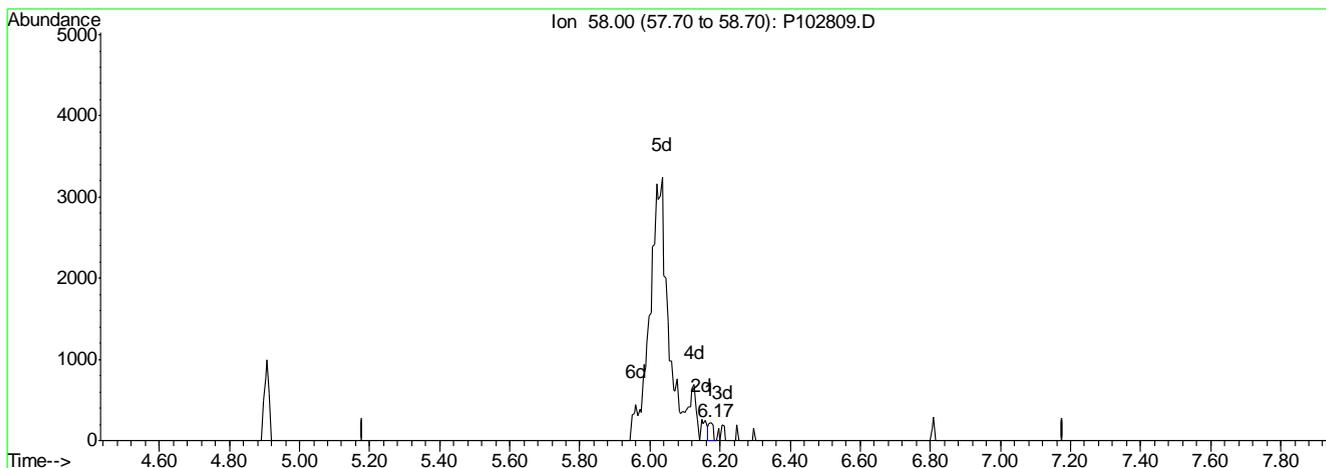
9.6.32.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:55 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.17min 0.03ppm

response 204

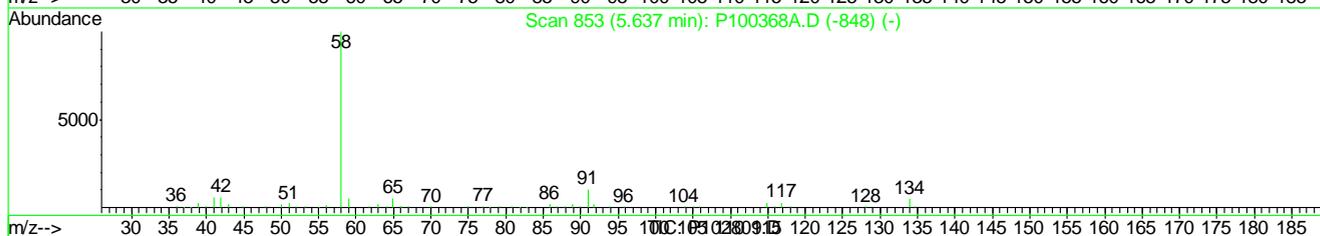
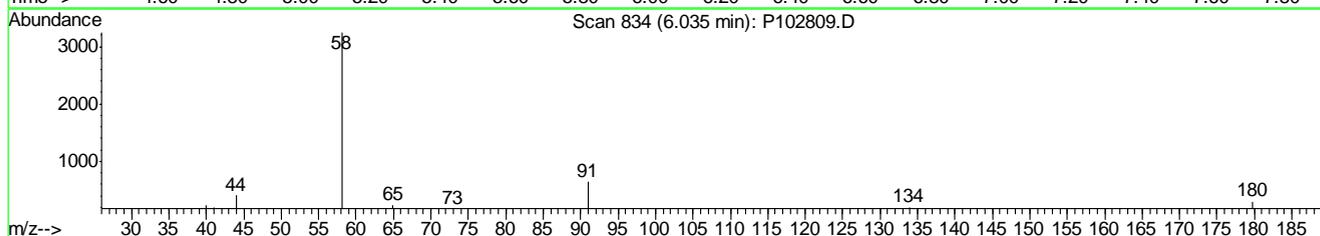
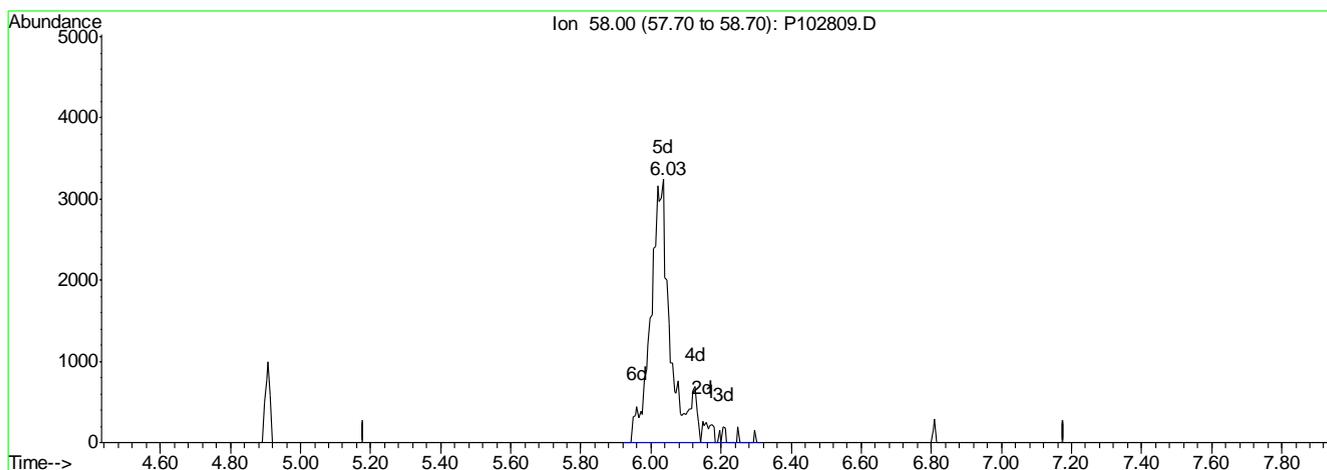
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.32.2
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.03min 1.67ppm m

response 13373

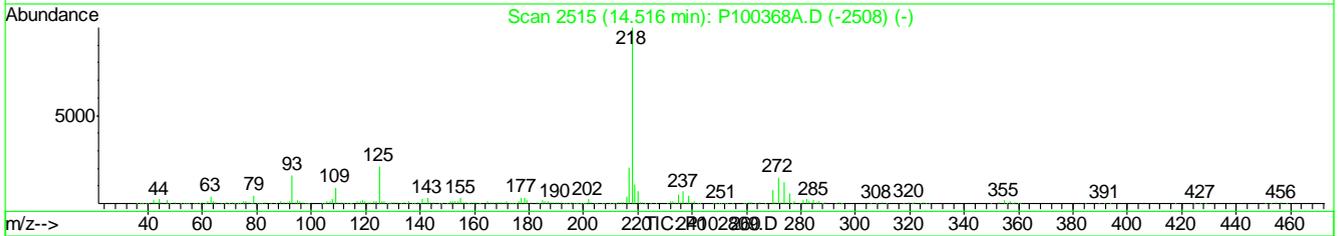
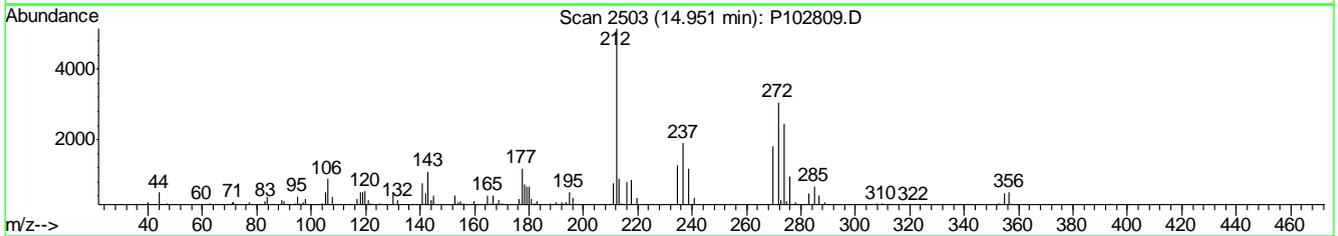
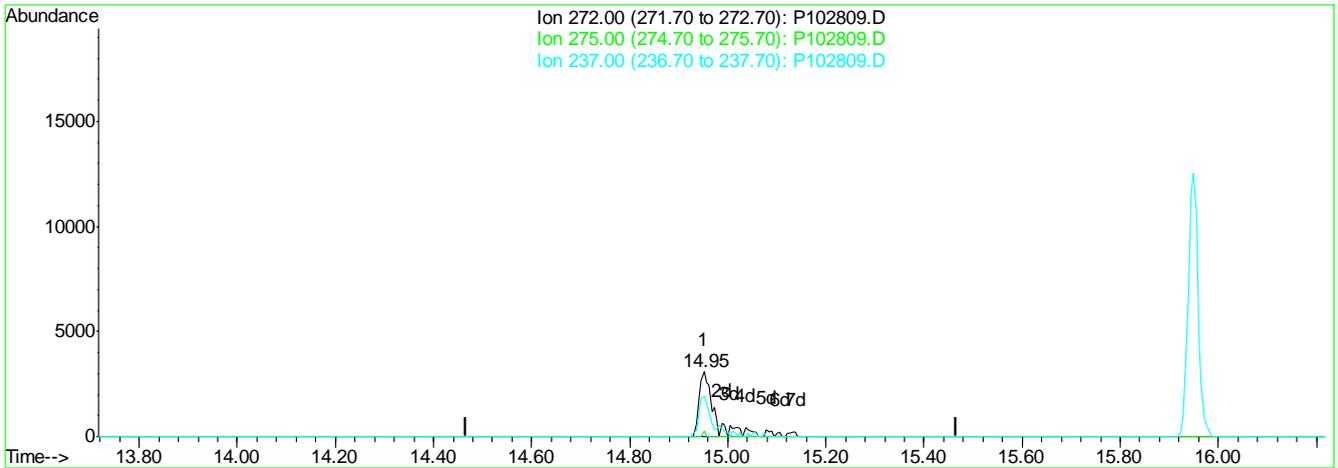
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.32.3
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.95min 46.13ppm

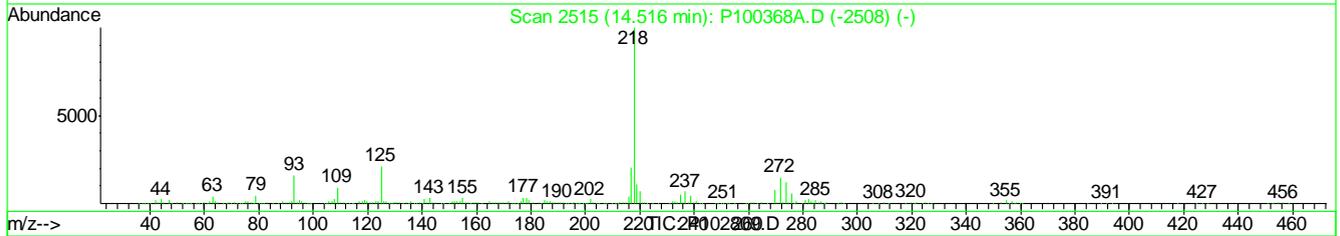
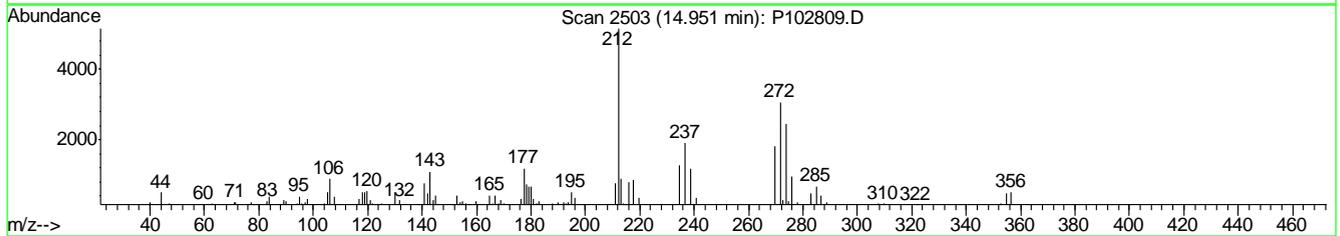
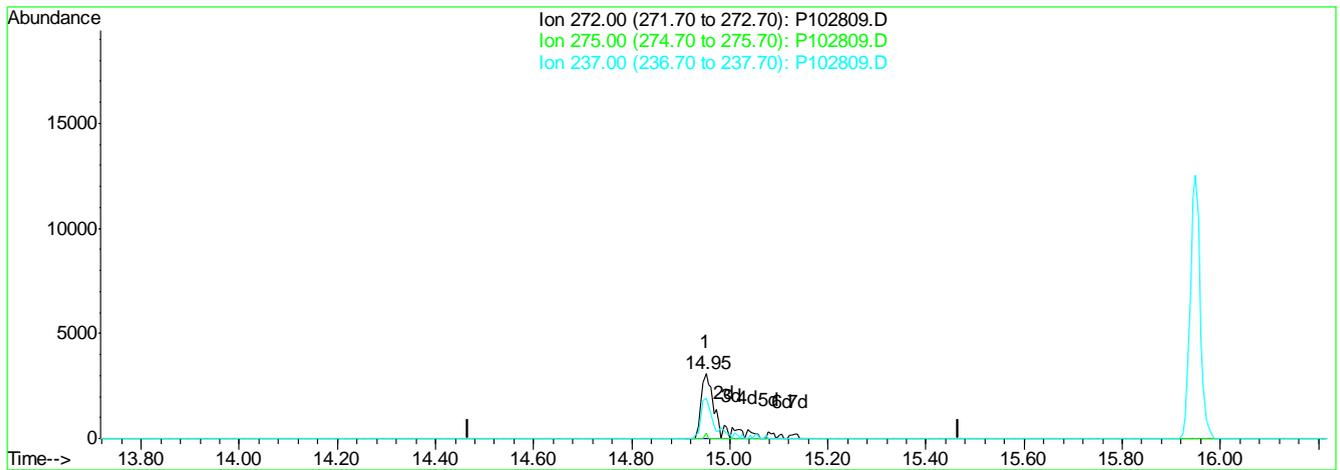
response 5259

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	33.24
237.00	28.40	48.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.95min 64.76ppm m

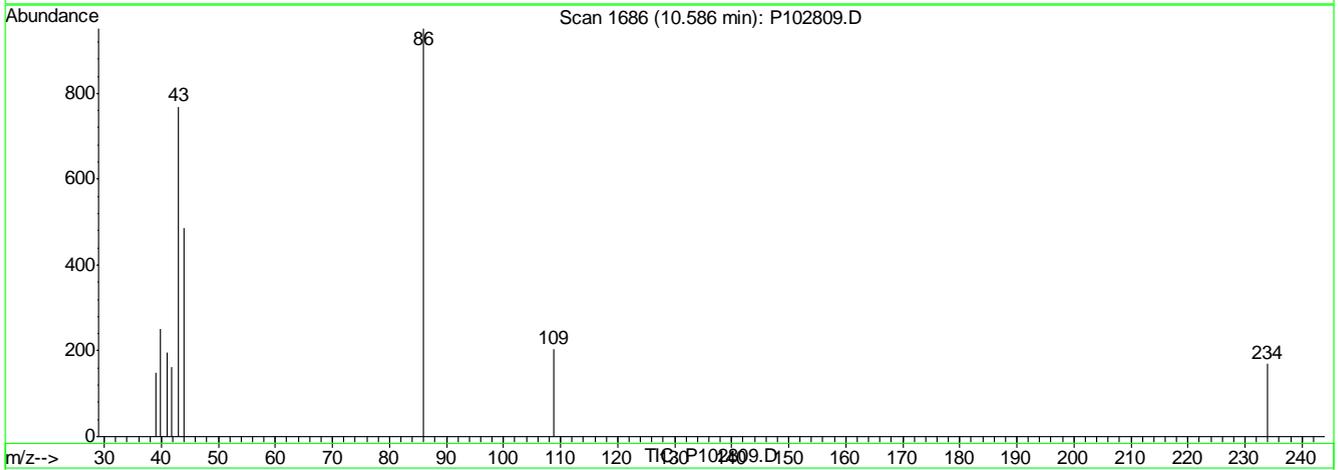
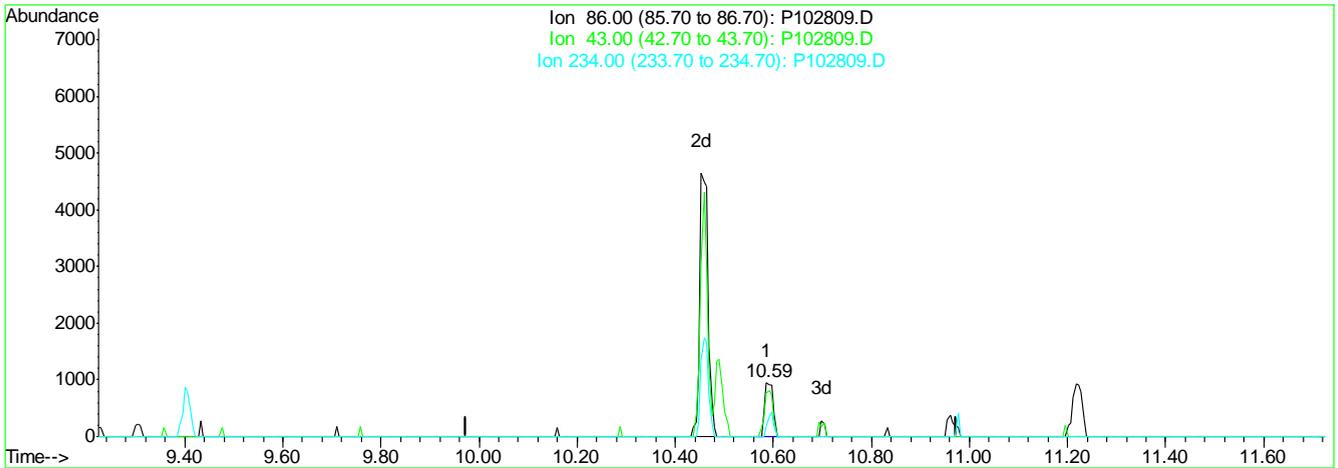
response 7382

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	31.07
237.00	28.40	61.99#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:13:26 2016
 Response via : Multiple Level Calibration



(141) Diallate (M)

10.59min 0.58ppm

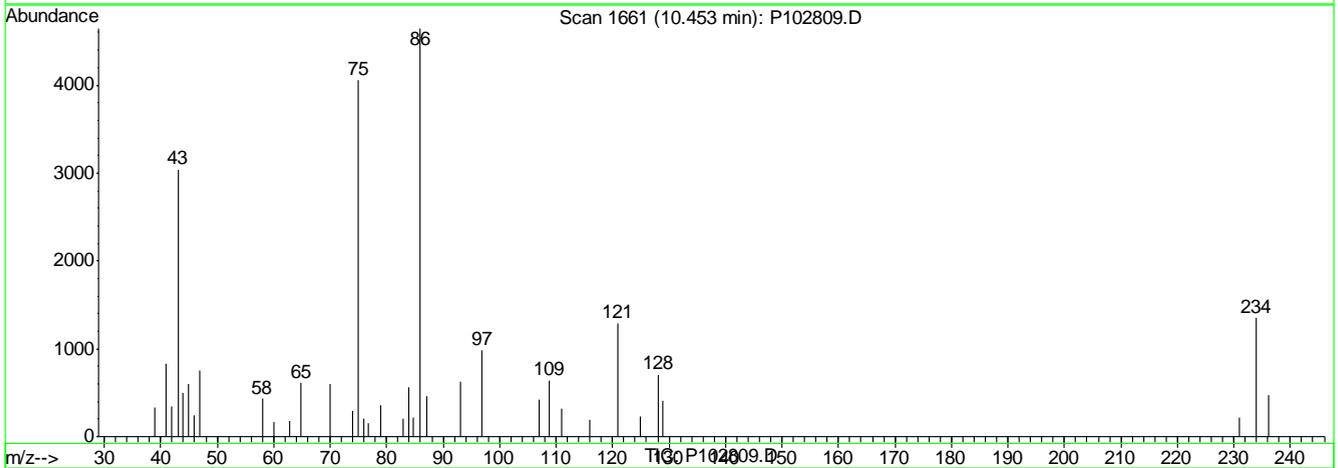
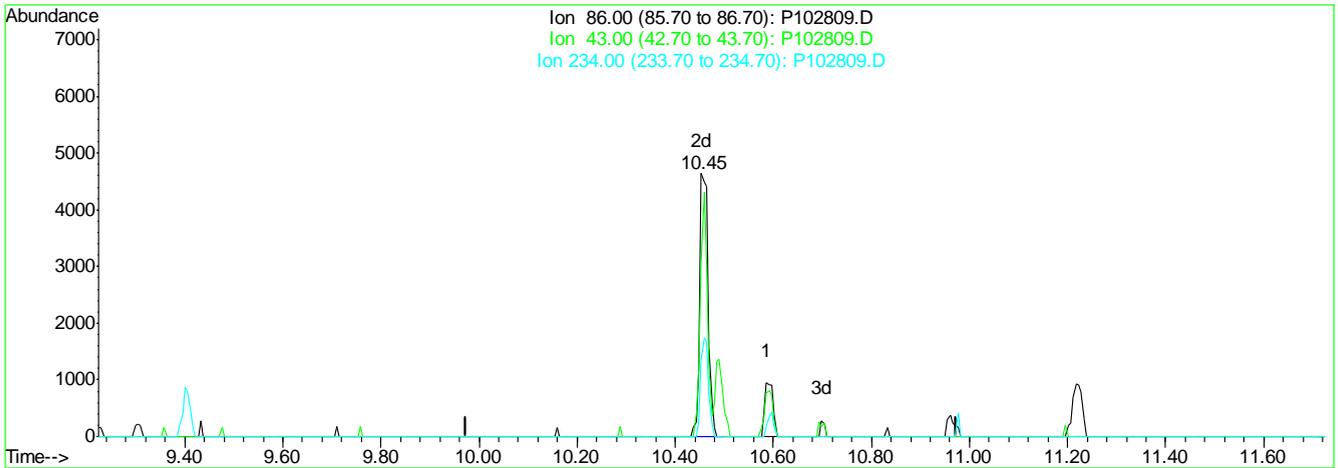
response 1150

Ion	Exp%	Act%
86.00	100	100
43.00	81.90	80.86
234.00	30.80	17.77
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102809.D Vial: 8
 Acq On : 24 Feb 2016 1:11 pm Operator: linseyk
 Sample : ic4515-2 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:23 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:13:26 2016
 Response via : Multiple Level Calibration



(141) Diallyte (M)

10.45min 2.81ppm m

response 5612

Ion	Exp%	Act%
86.00	100	100
43.00	81.90	65.44
234.00	30.80	29.01
0.00	0.00	0.00

9.6.32.7
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:57:02 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	119779	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	435521	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	243335	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	396205	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	341296	40.00	ppm	0.00
92) Perylene-d12	18.52	264	327759	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	119779	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	435521	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	243335	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	396205	40.00	ppm	-0.01
147) Chrysene-d12A	15.95	240	341296	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	327759	40.00	ppm	-0.01
159) 1,4-Dichlorobenzene-d4b	4.37	152	119779	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	396205	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	341296	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	435521	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	243335	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	435521	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	119779	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	341296	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	341296	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	435521	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
103) 2-Picoline	2.50	93	5508	1.18	ppm	94
104) Pentachloroethane	4.03	167	1693	1.08	ppm	98
105) Methyl methanesulfonate	2.80	80	2920	1.28	ppm	82
106) N-Nitrosodiethylamine	3.17	102	2145	1.08	ppm	87
107) N-Nitrosomethylethylamine	2.55	42	2006	1.28	ppm	# 67
108) Ethyl methanesulfonate	3.47	79	4041	1.33	ppm	91
109) N-Nitrosopyrrolidine	4.85	41	1337m	1.15	ppm	
110) N-Nitrosomorpholine	4.91	56	2271	1.55	ppm	82
111) o-Toluidine	4.94	106	7608	1.56	ppm	# 51
113) O,O,O-Triethyl phosphoroth	5.77	198	1783	1.13	ppm	82
114) N-Nitrosopiperidine	5.33	42	2398	2.29	ppm	# 73
115) A,A-Dimethylphenethylamine	6.00	58	7052m	0.82	ppm	

(#) = qualifier out of range (m) = manual integration

P102810.D MP4513.M Wed Feb 24 15:59:41 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:57:02 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

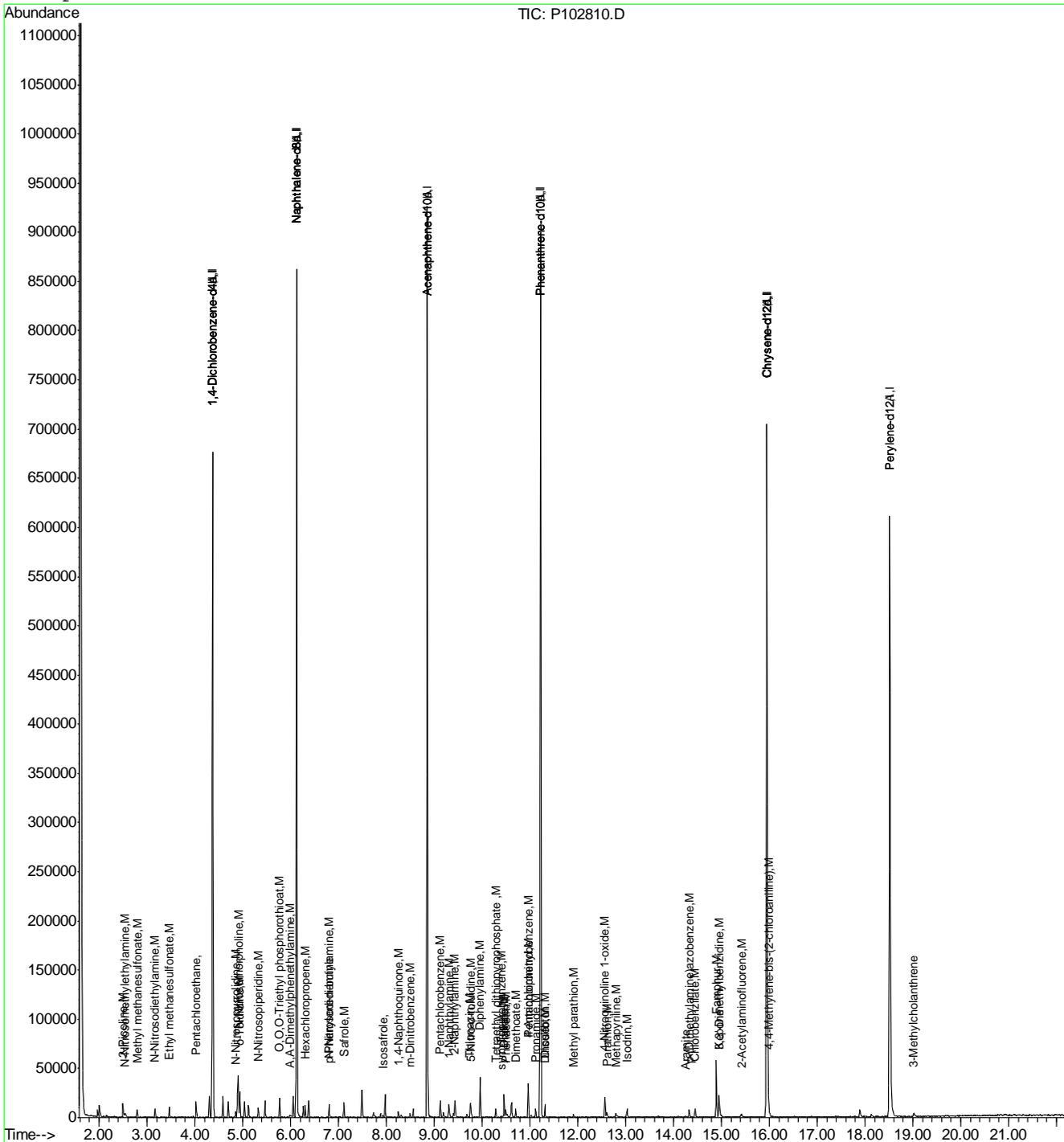
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.31	213	2192	1.04	ppm	80
117) N-Nitrosodi-n-butylamine	6.80	84	2706	1.06	ppm	93
118) p-Phenylenediamine	6.79	108	599	0.29	ppm #	38
119) Safrole	7.11	162	2805	1.07	ppm	87
120) Isosafrole	7.93	162	809	0.91	ppm #	59
122) Thionazin	9.75	143	777	0.88	ppm	94
123) Tetraethyl dithiopyrophosp	10.29	322	612	0.76	ppm	100
124) Phorate	10.46	75	4365	1.15	ppm	100
125) Phenacetin	10.50	108	3169	0.87	ppm	94
126) 1,4-Naphthoquinone	8.25	158	1359	0.80	ppm	92
127) m-Dinitrobenzene	8.50	168	488	0.45	ppm	87
128) Pentachlorobenzene	9.13	250	2942	1.30	ppm	91
129) 2-Naphthylamine	9.44	143	7729	1.39	ppm	90
130) 1-Naphthylamine	9.31	143	6080	1.23	ppm	97
131) 5-Nitro-o-toluidine	9.77	152	1540	0.76	ppm	90
133) Disulfoton	11.31	88	3491	1.09	ppm	98
134) Dinoseb	11.30	211	251	0.16	ppm #	39
135) Dimethoate	10.70	87	2353	0.86	ppm	68
136) 4-Aminobiphenyl	10.96	169	7484	1.26	ppm	97
137) Methyl parathion	11.91	125	926	0.48	ppm #	65
138) Parathion	12.61	109	957	0.69	ppm #	72
139) Diphenylamine	9.96	169	12696	1.44	ppm	98
140) Isodrin	13.02	193	1393	1.28	ppm	72
141) Diallate	10.46	86	2981	1.39	ppm	92
142) Pentachloronitrobenzene	10.97	295	521	1.77	ppm	83
143) Pronamide	11.12	173	2082	0.71	ppm	95
144) 4-Nitroquinoline 1-oxide	12.57	190	833	0.79	ppm #	36
145) Methapyriline	12.79	58	2254m	1.02	ppm	
146) sym-Trinitrobenzene	10.39	213	106	0.17	ppm #	23
148) Aramite	14.25	185	134	0.45	ppm #	65
149) p-(Dimethylamine)azobenzen	14.33	120	2466	0.71	ppm	83
150) Kepone	14.96	272	3255m	26.90	ppm	
151) Famphur	14.89	218	21105	15.97	ppm	96
152) 2-Acetylaminofluorene	15.42	181	1818	0.41	ppm	74
153) 3,3'-Dimethylbenzidine	14.96	212	3654	3.79	ppm	87
154) Chlorobenzilate	14.45	251	1717	0.66	ppm	94
156) 4,4-Methylene-bis-(2-chlor	15.99	266	587	0.74	ppm	83
158) 3-Methylcholanthrene	19.01	252	828	0.46	ppm #	50

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102810.D MP4513.M Wed Feb 24 15:59:41 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
Sample : ic4515-1 Inst : MSP
Misc : op91338,ep4515 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 15:59 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 15:49:44 2016
Response via : Initial Calibration



9.633 9

Manual Integration Approval Summary

Sample Number: EP4515-IC4515 Method: SW846 8270D
Lab FileID: P102810.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 13:41 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
N-Nitrosopyrrolidine	930-55-2		4.85	Poor instrument integration
A,A-Dimethylphenethylamine	122-09-8		6.00	Split peak
Methapyrilene	91-80-5		12.79	Split peak
Kepone	143-50-0		14.96	Split peak

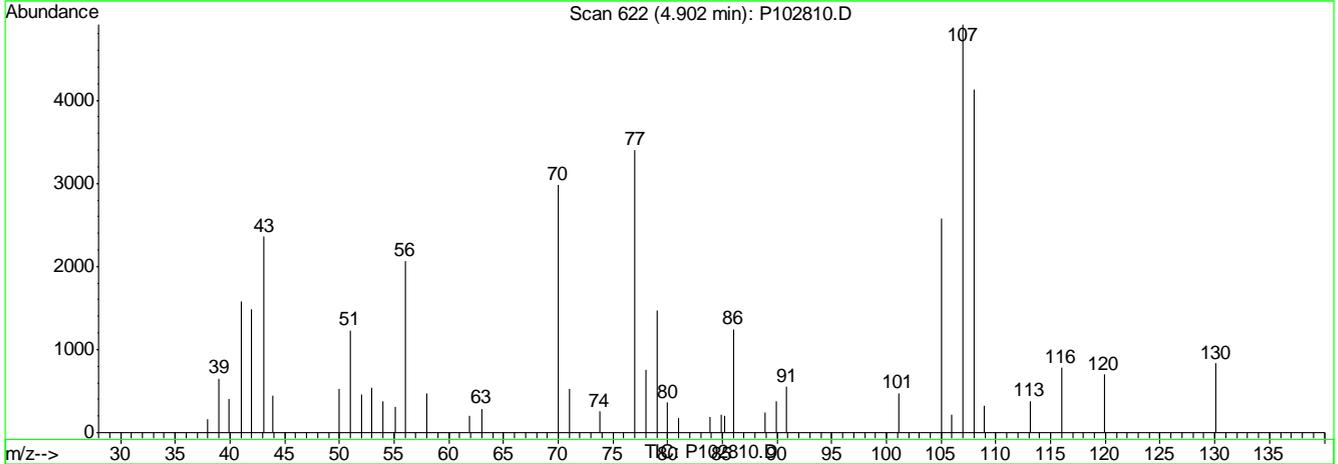
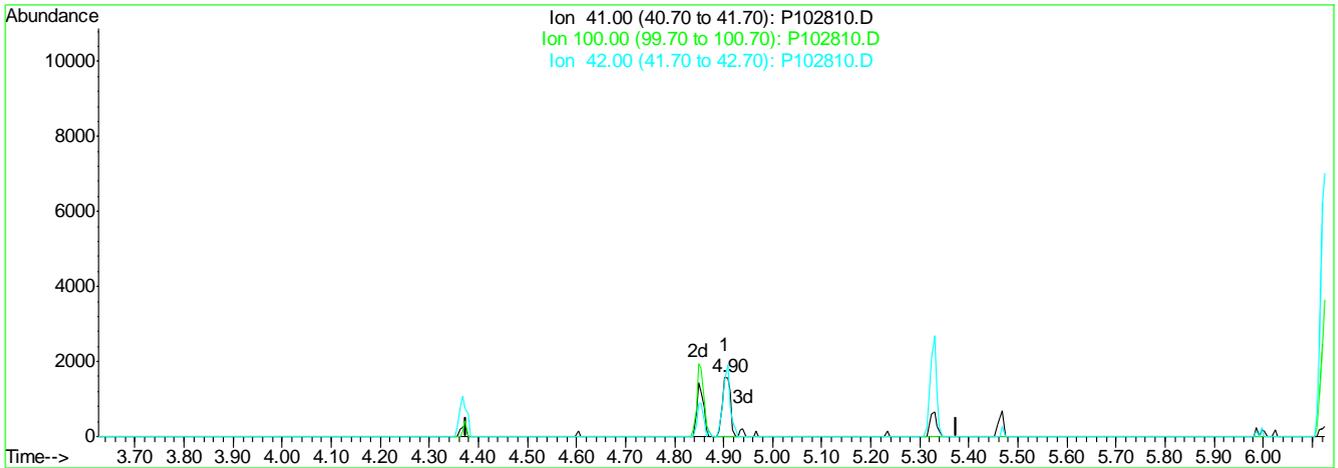
9.6.33.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:57 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(109) N-Nitrosopyrrolidine (M)

4.90min 1.52ppm

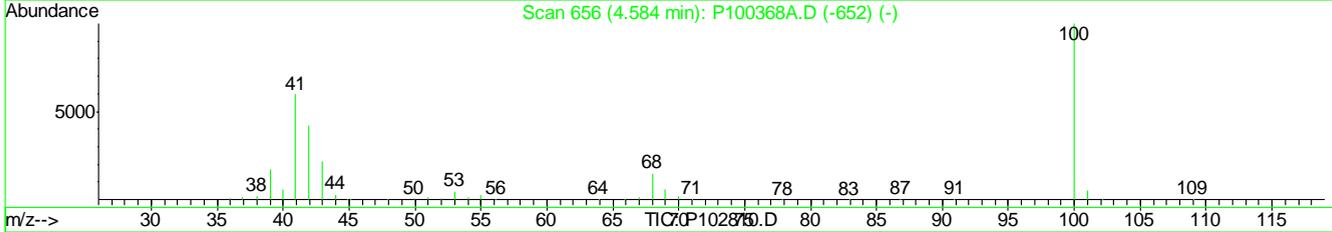
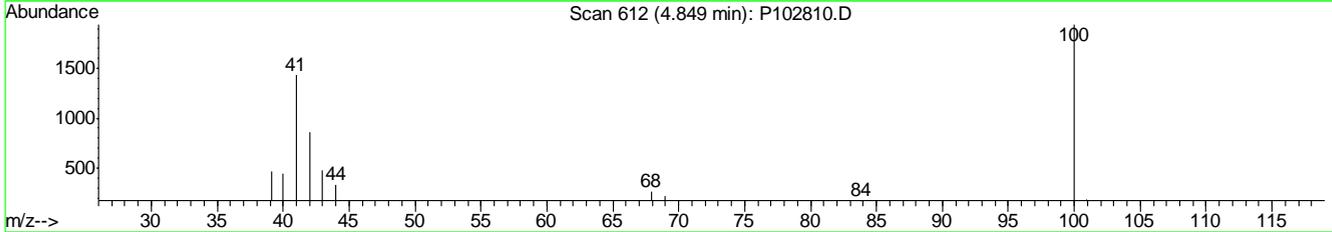
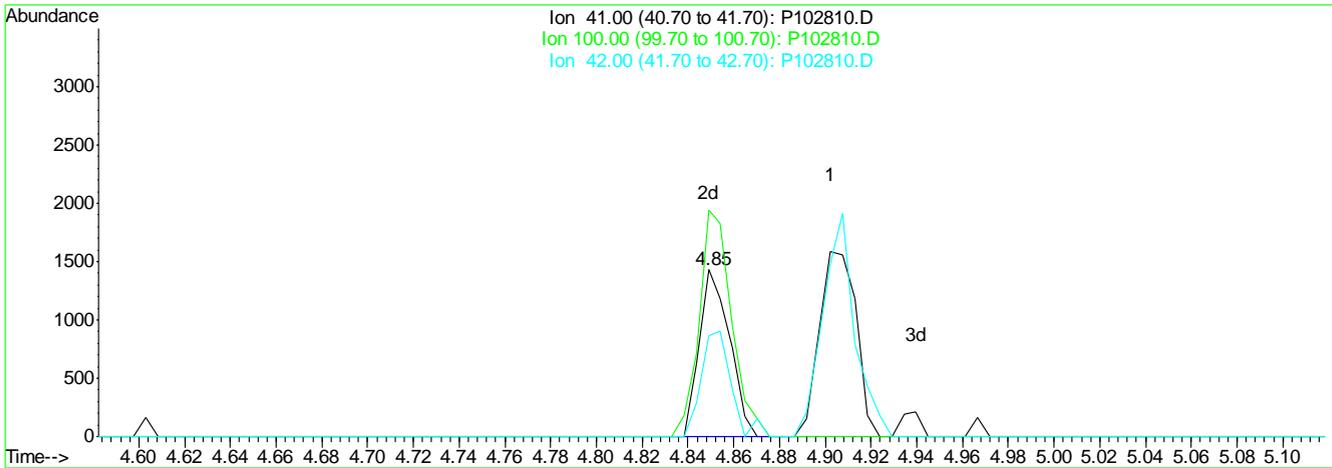
response 1764

Ion	Exp%	Act%
41.00	100	100
100.00	176.30	0.00#
42.00	58.40	87.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(109) N-Nitrosopyrrolidine (M)

4.85min 1.15ppm m

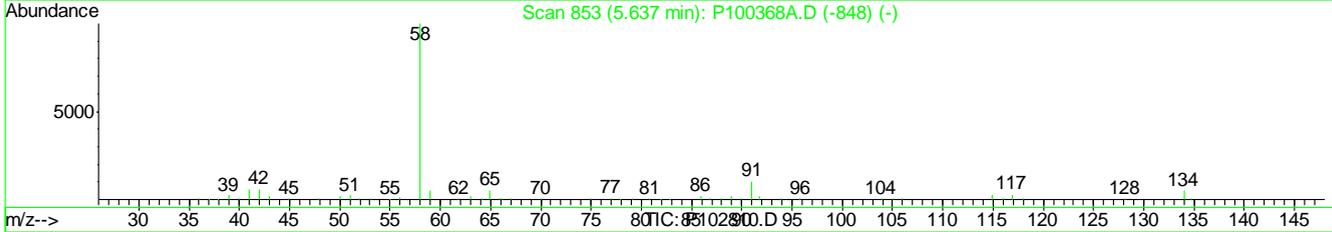
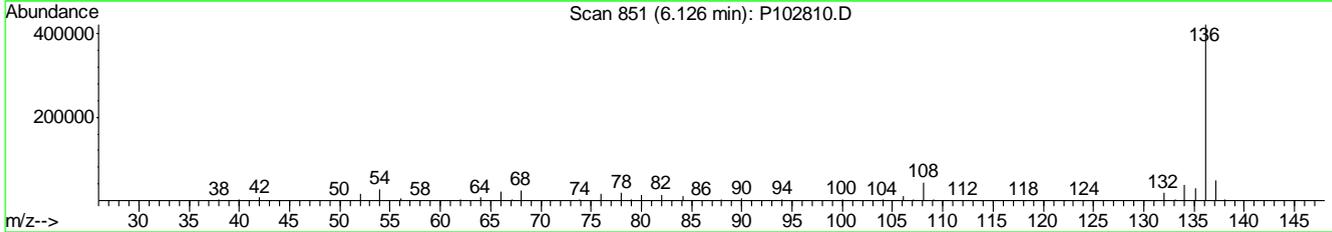
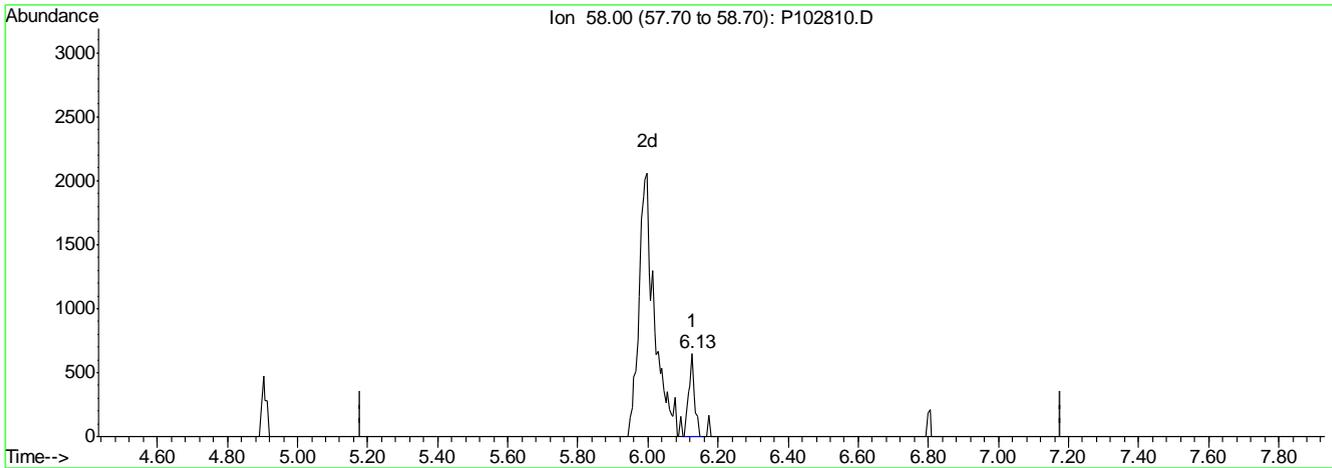
response 1337

Ion	Exp%	Act%
41.00	100	100
100.00	176.30	135.66#
42.00	58.40	60.21
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.13min 0.08ppm

response 718

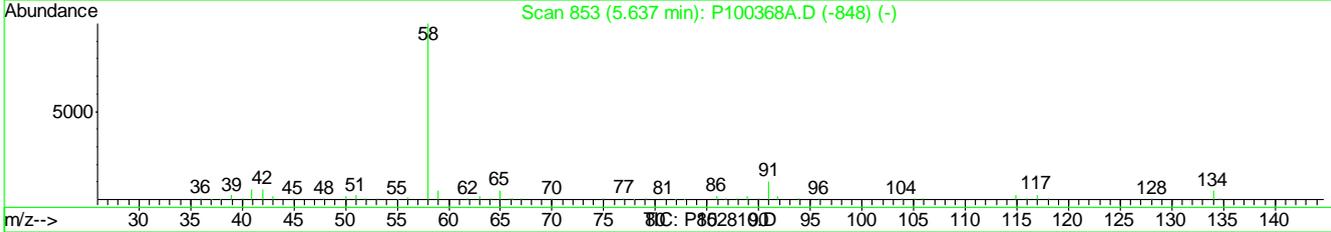
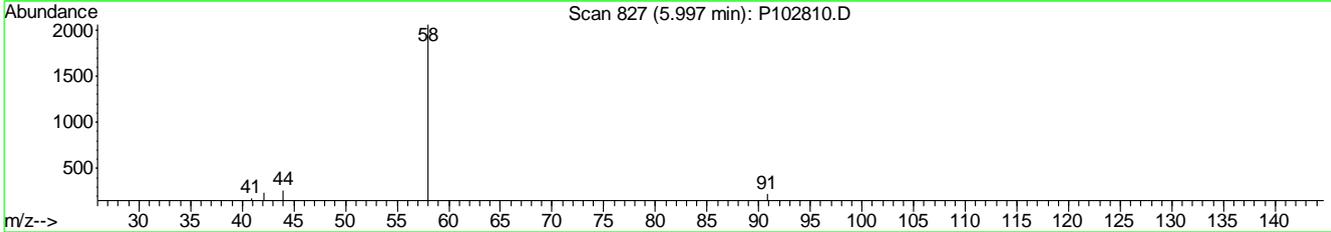
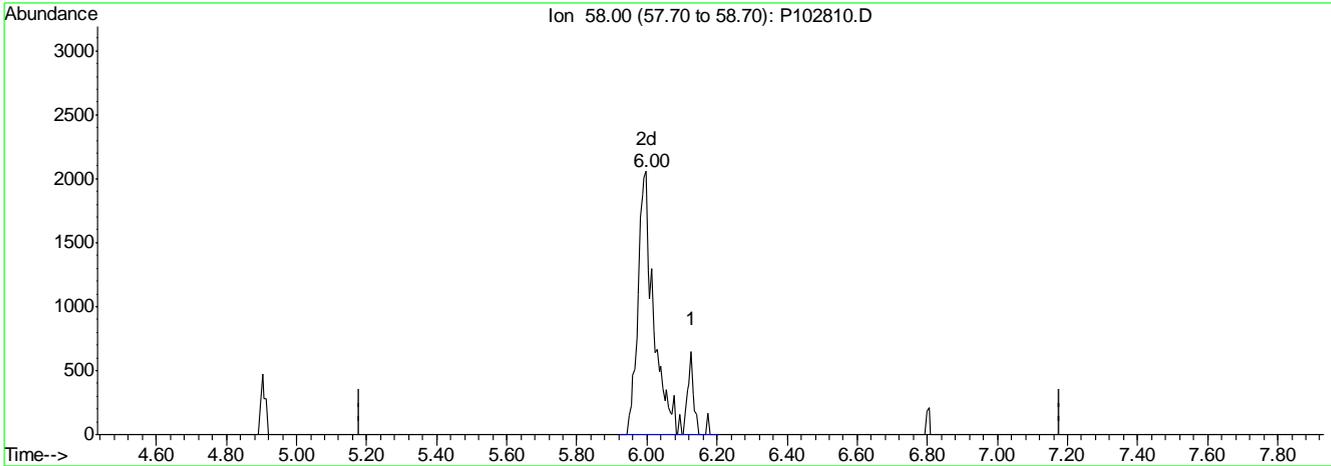
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.33.4
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.00min 0.82ppm m

response 7052

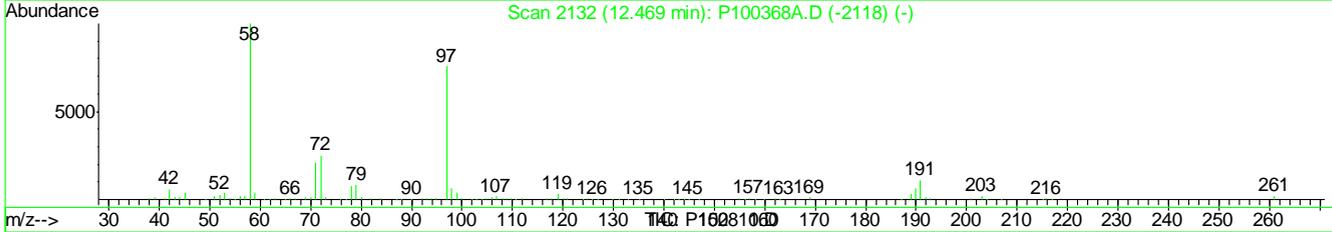
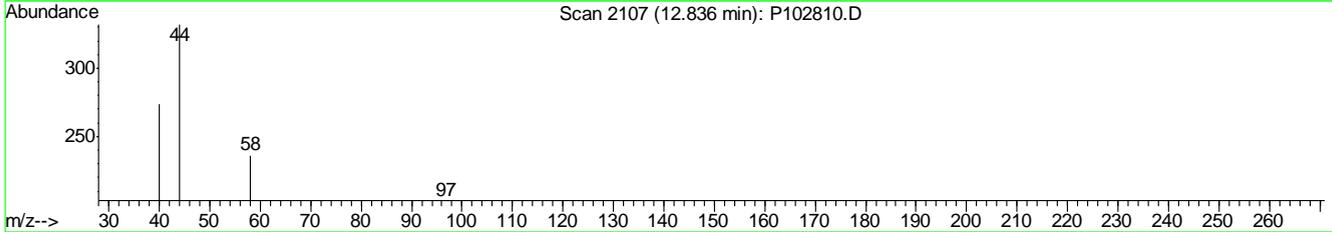
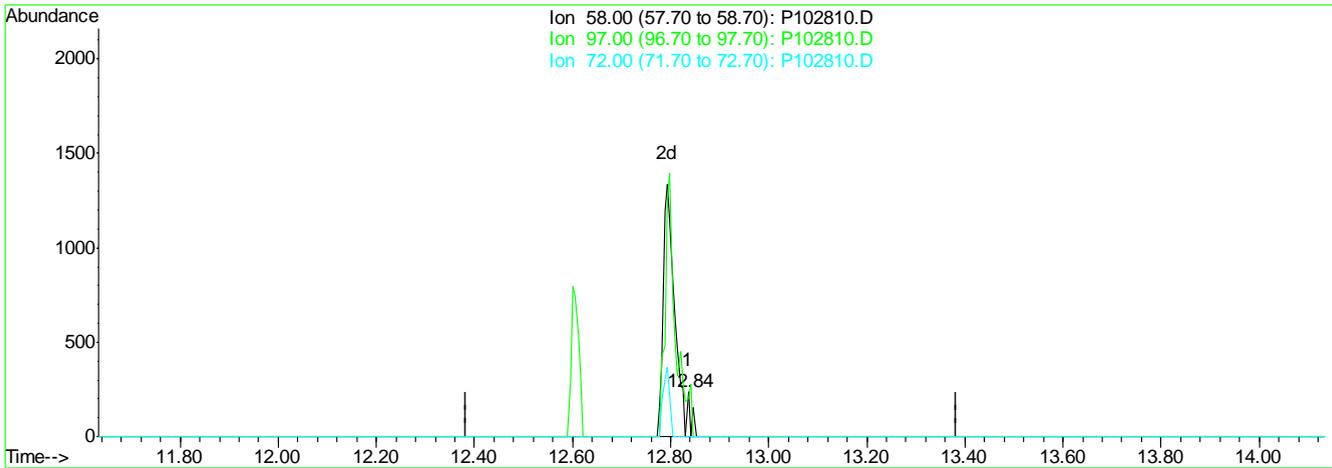
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.33.5
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(145) Methapyriline (M)

12.84min 0.06ppm

response 125

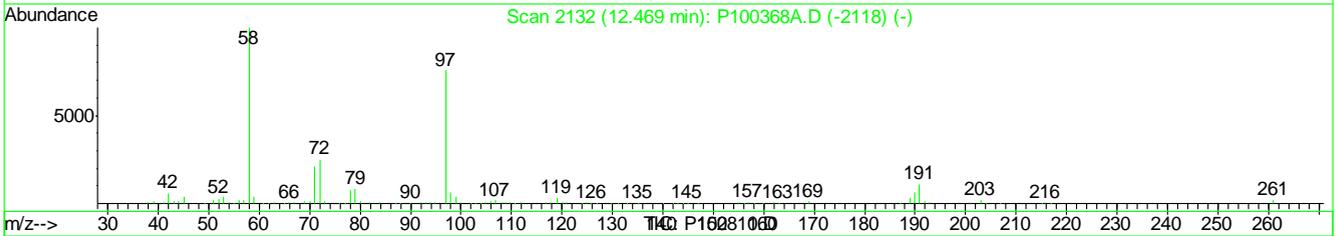
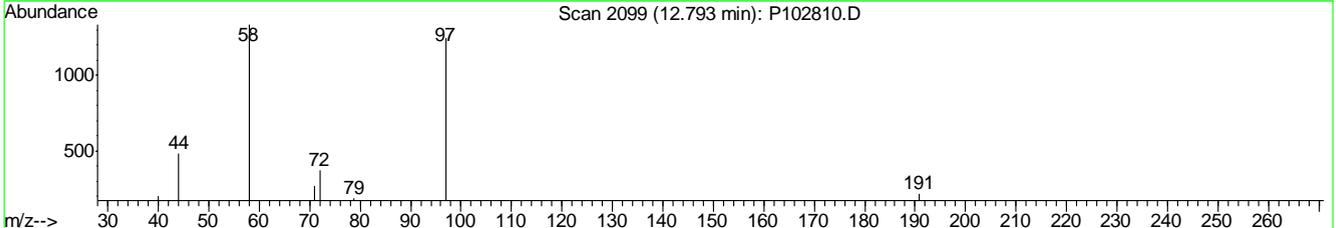
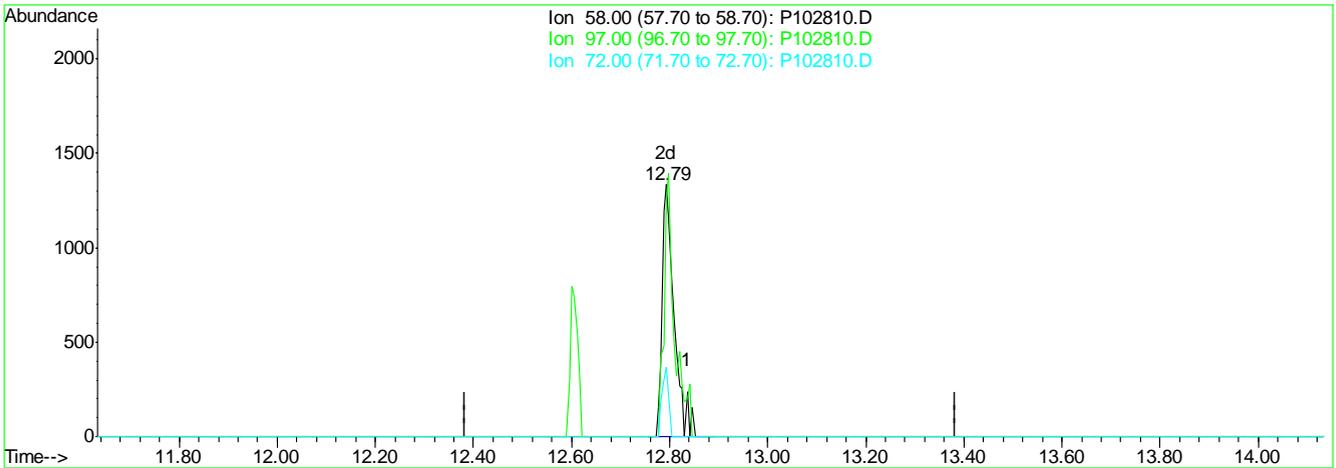
Ion	Exp%	Act%
58.00	100	100
97.00	72.10	47.03
72.00	27.20	0.00
0.00	0.00	0.00

9.6.33.6
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(145) Methapyriline (M)

12.79min 1.02ppm m

response 2254

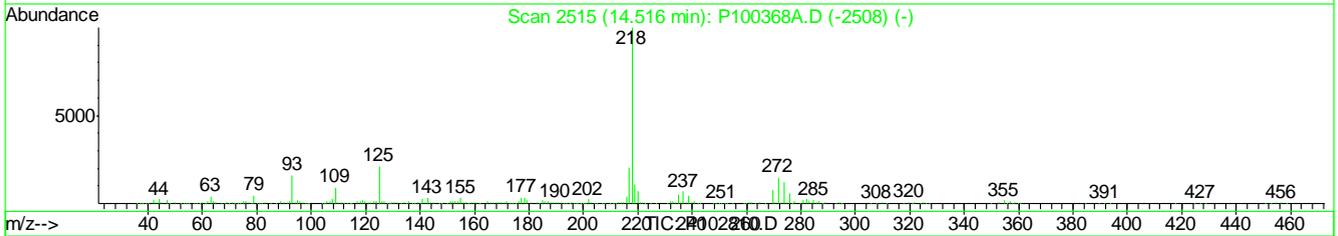
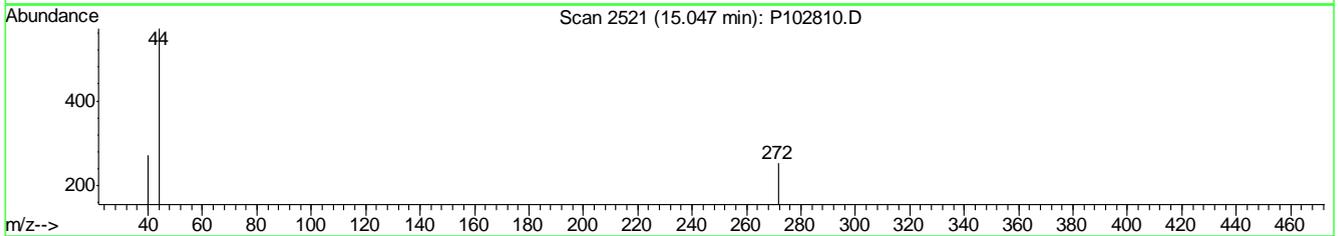
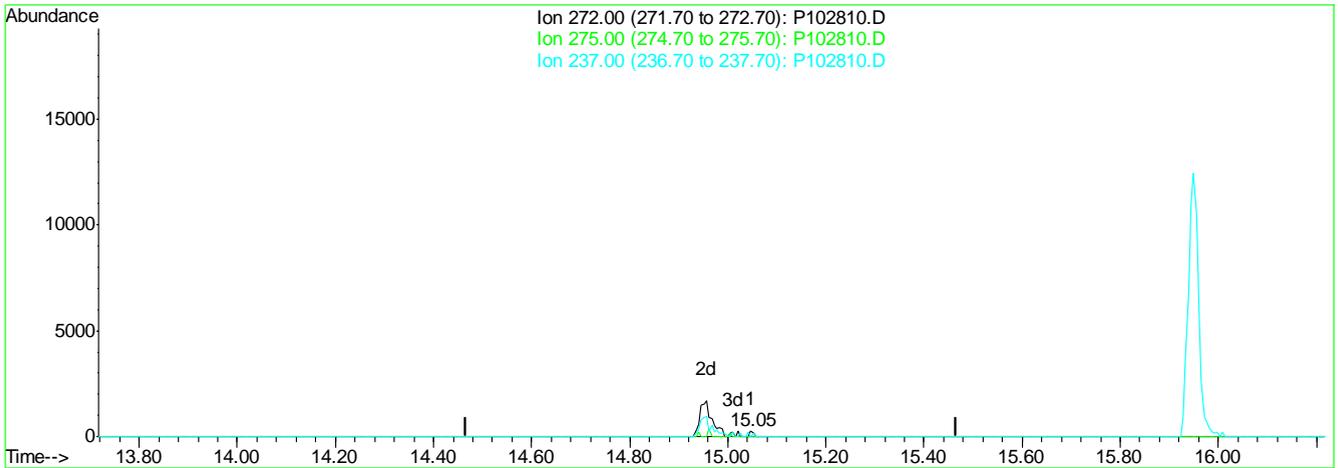
Ion	Exp%	Act%
58.00	100	100
97.00	72.10	93.33
72.00	27.20	27.79
0.00	0.00	0.00

9.6.33.7
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

15.05min 1.10ppm

response 133

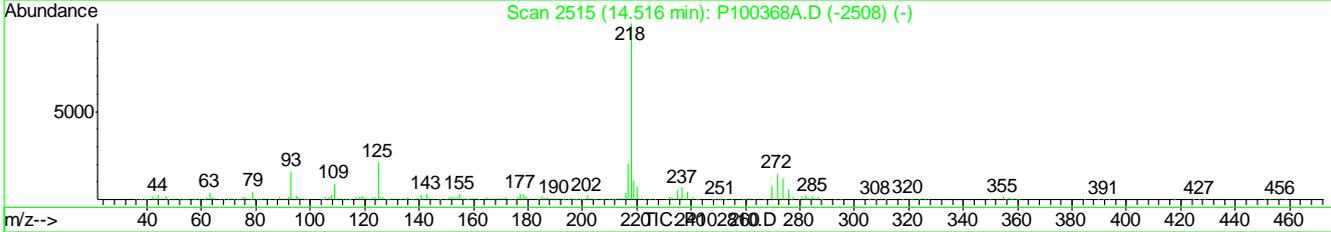
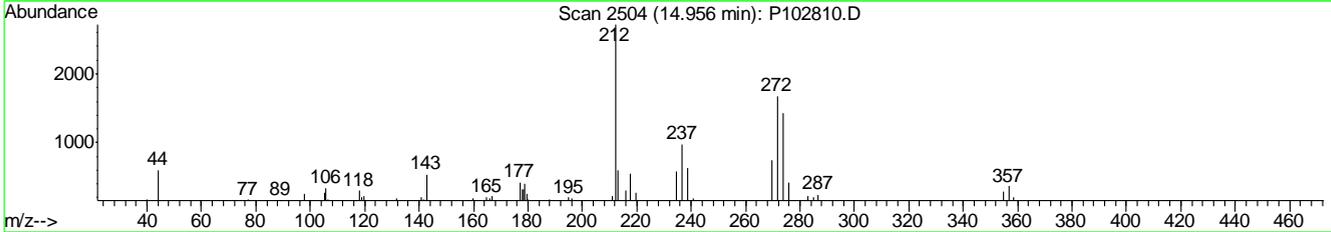
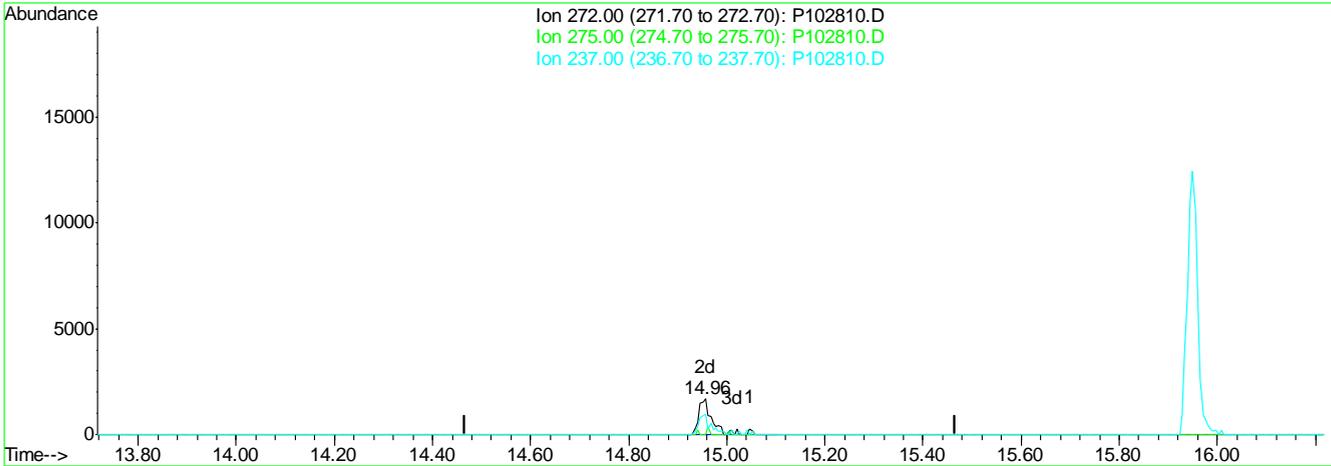
Ion	Exp%	Act%
272.00	100	100
275.00	3.50	0.00
237.00	28.40	0.00
0.00	0.00	0.00

9.6.33.8
 9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102810.D Vial: 9
 Acq On : 24 Feb 2016 1:41 pm Operator: linseyk
 Sample : ic4515-1 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 15:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 15:49:44 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.96min 26.90ppm m

response 3255

Ion	Exp%	Act%
272.00	100	100
275.00	3.50	25.46
237.00	28.40	58.50#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:34:27 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	123082	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	427280	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	252579	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	394401	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	352488	40.00	ppm	0.00
92) Perylene-d12	18.52	264	337330	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	123082	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	427280	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	252579	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	394401	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	352488	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	337330	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	123082	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	394401	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	352488	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	427280	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	252579	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	427280	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	123082	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	352488	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	352488	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	427280	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
103) 2-Picoline	2.47	93	231418	43.88	ppm	100
104) Pentachloroethane	4.03	167	65432	37.08	ppm	98
106) N-Nitrosodiethylamine	3.16	102	101496	47.29	ppm	95
107) N-Nitrosomethylethylamine	2.54	42	82475	46.54	ppm	99
108) Ethyl methanesulfonate	3.46	79	156399	45.19	ppm	95
109) N-Nitrosopyrrolidine	4.85	41	63509	51.46	ppm	98
110) N-Nitrosomorpholine	4.91	56	88725	45.10	ppm	98
113) O,O,O-Triethyl phosphoroth	5.78	198	80540	47.61	ppm	93
114) N-Nitrosopiperidine	5.32	42	103638	48.52	ppm	97
115) A,A-Dimethylphenethylamine	6.17	58	408697m	53.32	ppm	
116) Hexachloropropene	6.31	213	100224	45.49	ppm	99
117) N-Nitrosodi-n-butylamine	6.81	84	130669	48.38	ppm	99

(#) = qualifier out of range (m) = manual integration
 P102811.D MP4513.M Fri Feb 26 09:41:09 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:34:27 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
118) p-Phenylenediamine	6.79	108	125220m	60.97	ppm	
119) Safrole	7.12	162	142043	50.71	ppm	98
122) Thionazin	9.76	143	50606	50.38	ppm	97
123) Tetraethyl dithiopyrophosp	10.29	322	43306	51.13	ppm	100
124) Phorate	10.47	75	227114	48.18	ppm	100
125) Phenacetin	10.51	108	198796	49.53	ppm	96
126) 1,4-Naphthoquinone	8.26	158	103585	57.75	ppm	96
128) Pentachlorobenzene	9.13	250	123001	44.62	ppm	98
131) 5-Nitro-o-toluidine	9.77	152	79845	36.63	ppm	94
133) Disulfoton	11.31	88	201659	53.89	ppm	96
135) Dimethoate	10.71	87	149883	49.77	ppm	98
137) Methyl parathion	11.92	125	91225	46.31	ppm	98
138) Parathion	12.61	109	85236	57.89	ppm	97
140) Isodrin	13.03	193	62390	49.94	ppm	96
141) Diallate	10.46	86	134022	50.17	ppm	95
142) Pentachloronitrobenzene	10.97	295	16559	50.58	ppm	92
143) Pronamide	11.13	173	168808	58.00	ppm	99
144) 4-Nitroquinoline 1-oxide	12.57	190	37738	38.13	ppm	95
145) Methapyriline	12.79	58	149554	52.86	ppm	98
148) Aramite	14.25	185	37676	117.44	ppm	93
149) p-(Dimethylamine)azobenzen	14.33	120	193771	54.42	ppm	97
152) 2-Acetylaminofluorene	15.42	181	259544	60.27	ppm	99
154) Chlorobenzilate	14.45	251	130363	49.05	ppm	97
158) 3-Methylcholanthrene	19.02	252	96526	52.40	ppm	91

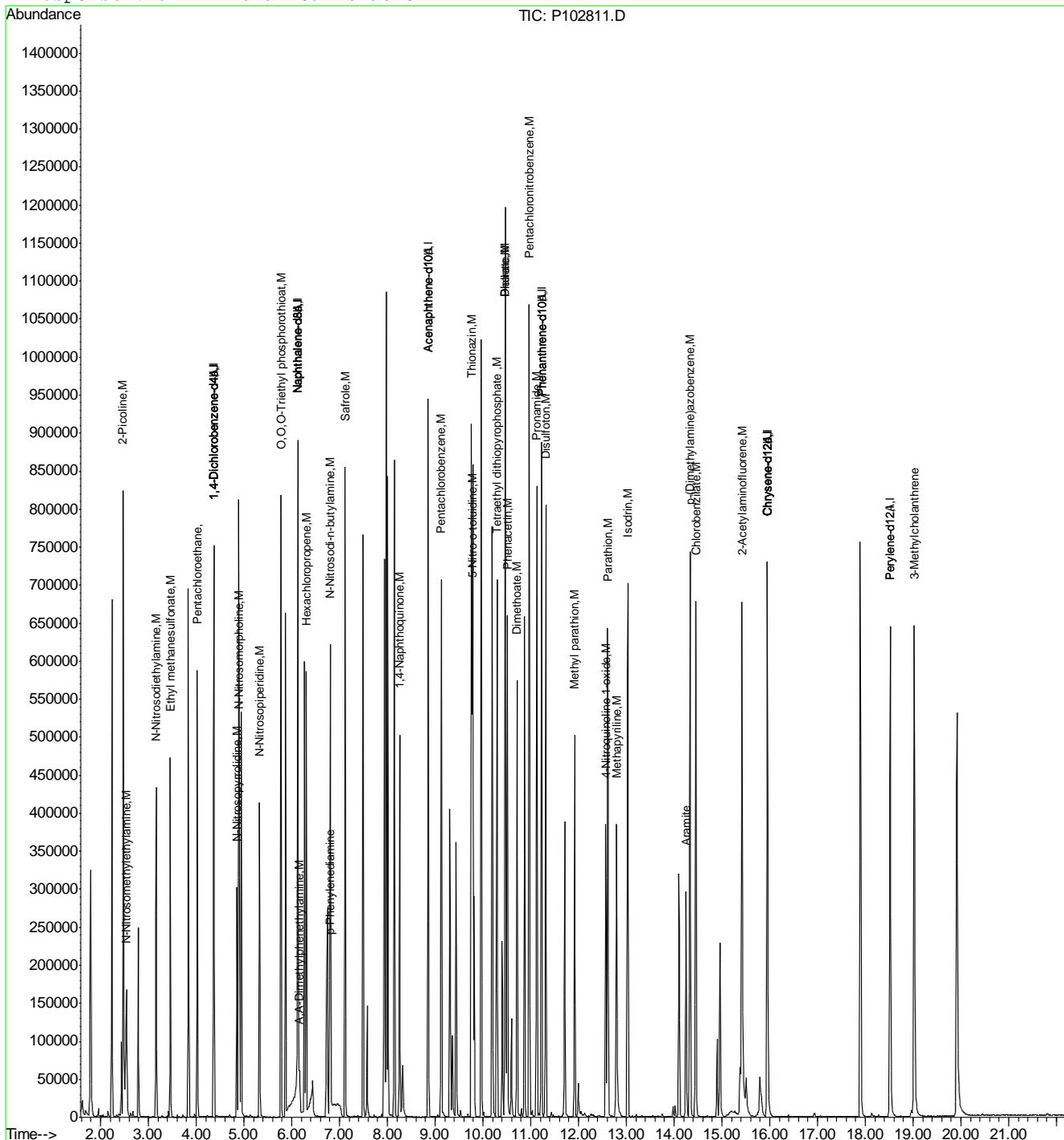
9.6.34
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102811.D MP4513.M Fri Feb 26 09:41:09 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 17:00 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration



9.6.34
9

Manual Integration Approval Summary

Sample Number: EP4515-ICV4515 Method: SW846 8270D
Lab FileID: P102811.D Analyst approved: 02/26/16 09:39 Kristi Schollenberger
Injection Time: 02/24/16 14:11 Supervisor approved: 02/26/16 12:38 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.17	Split peak
p-Phenylenediamine	106-50-3		6.79	Split peak

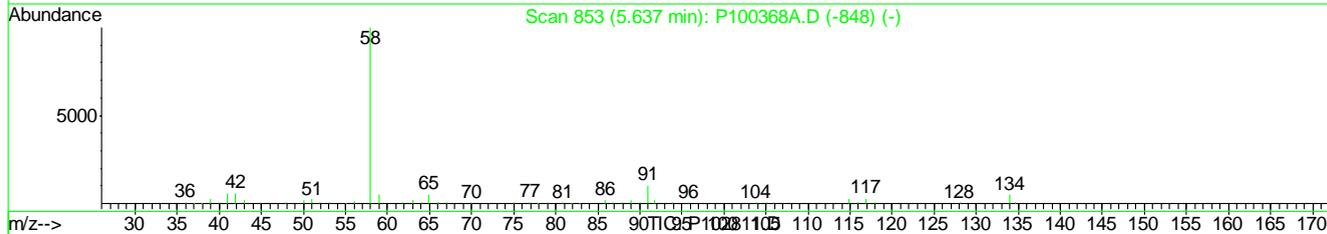
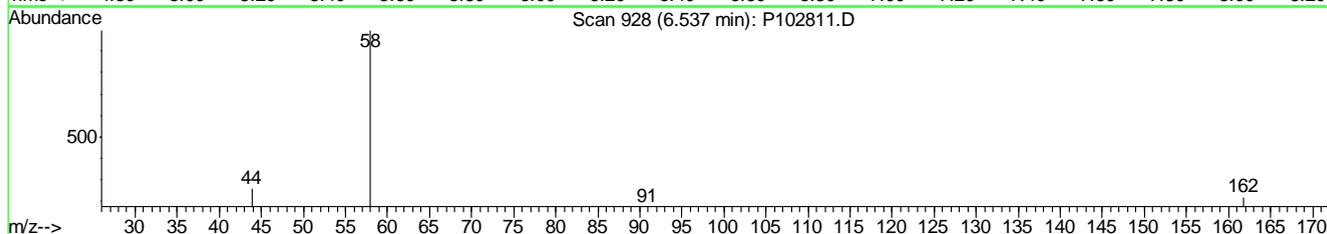
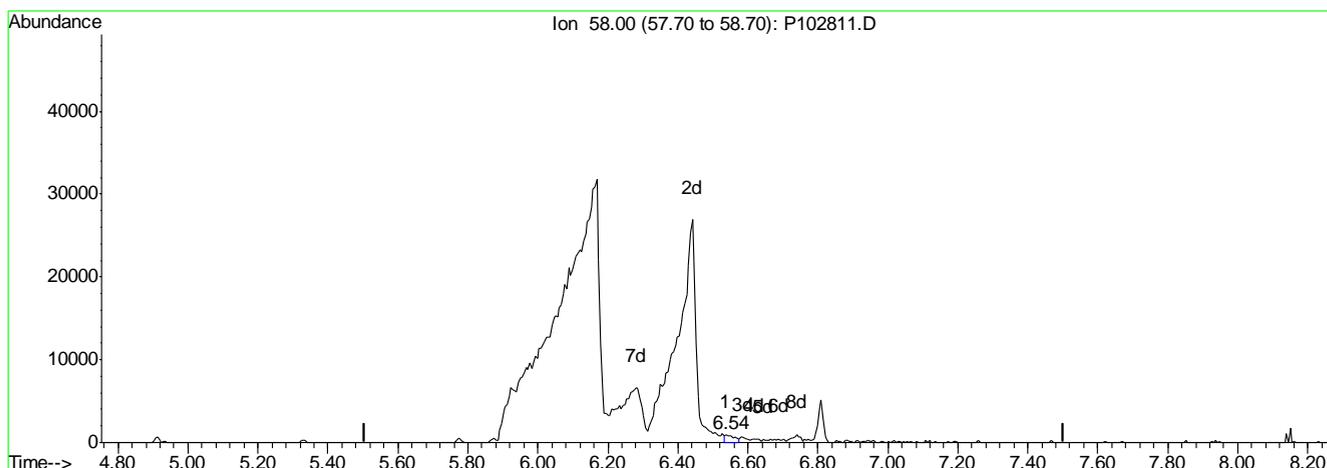
9.6.34.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:35 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.54min 0.24ppm

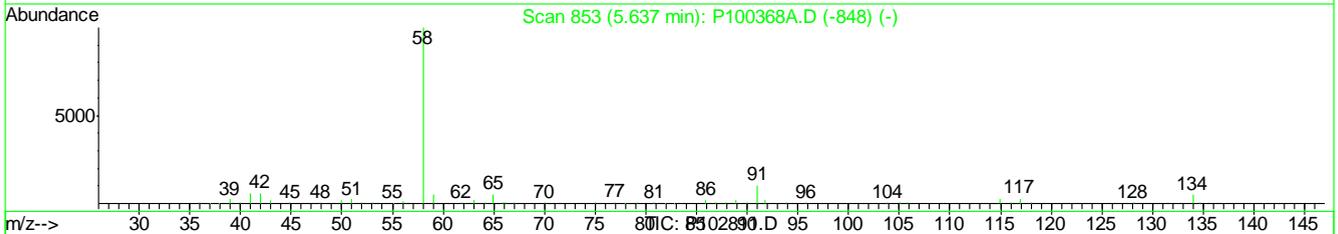
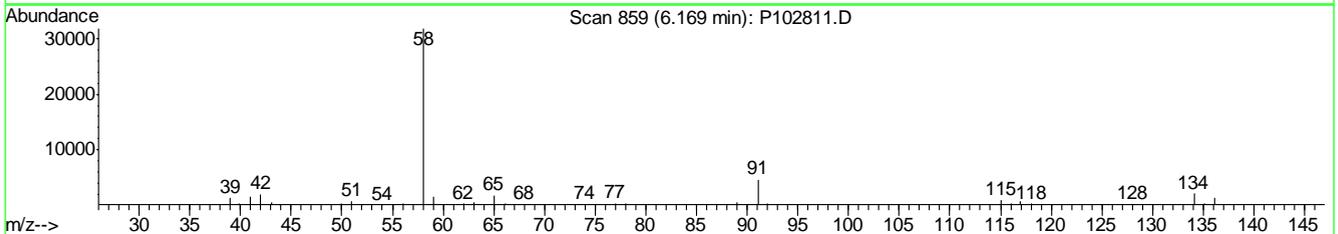
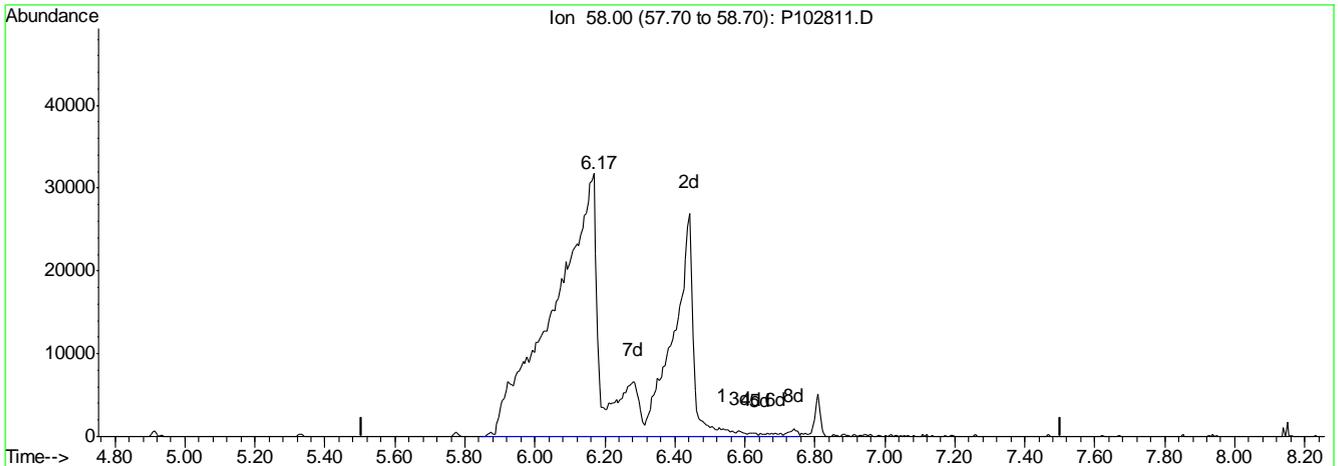
response 1827

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:35 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.17min 53.32ppm m

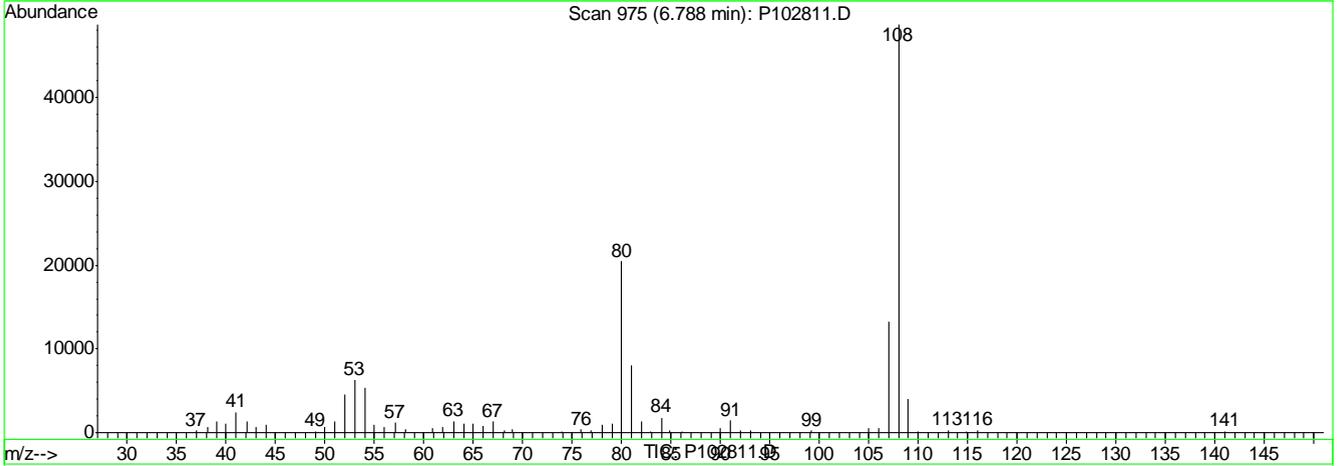
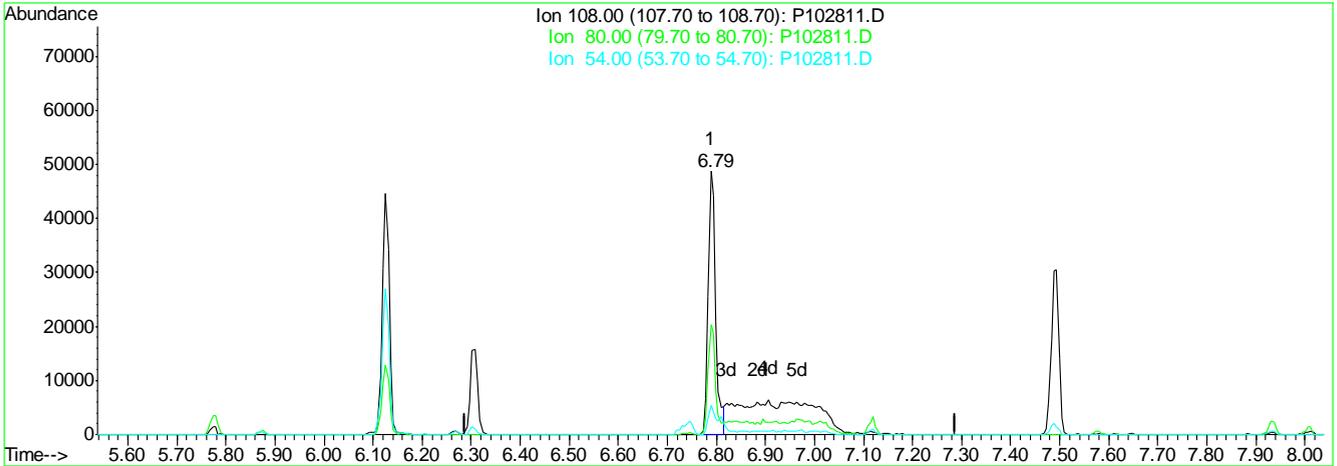
response 408697

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:35 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 26.54ppm

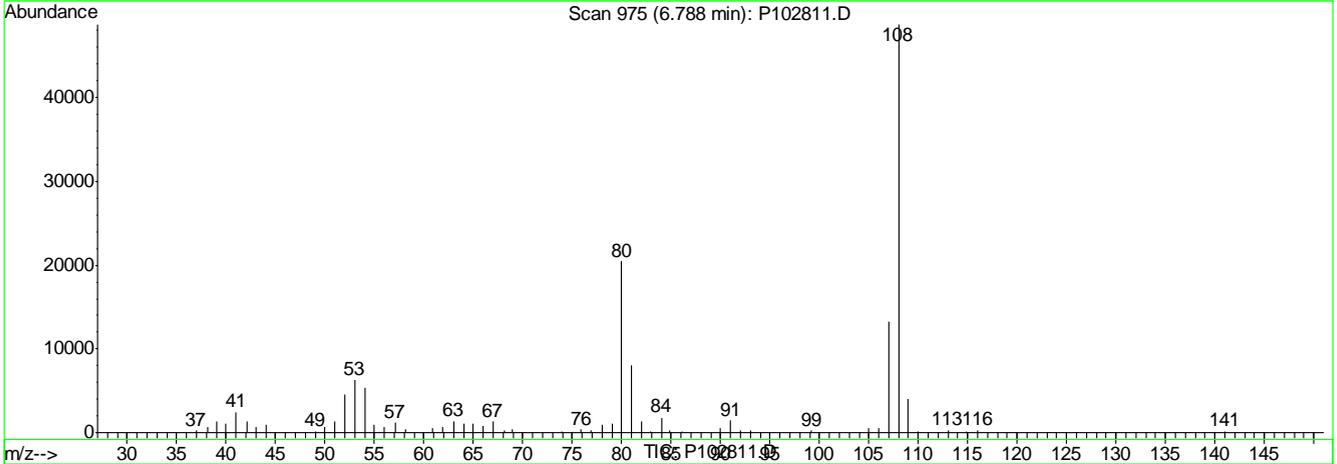
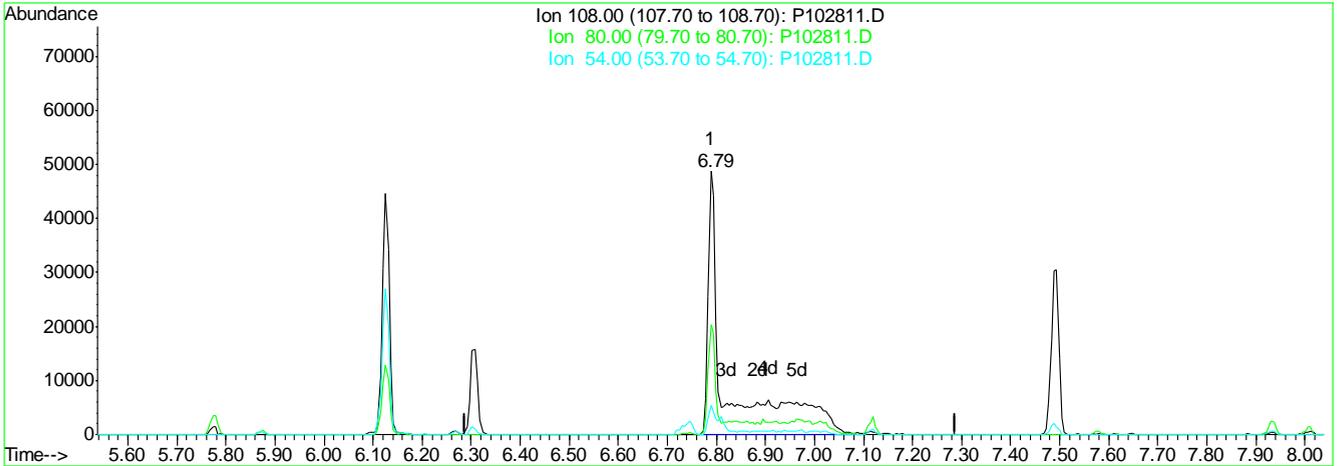
response 52862

Ion	Exp%	Act%
108.00	100	100
80.00	46.20	41.85
54.00	10.90	9.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102811.D Vial: 10
 Acq On : 24 Feb 2016 2:11 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:36 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Multiple Level Calibration



(118) p-Phenylenediamine

6.79min 60.97ppm m

response 125220

Ion	Exp%	Act%
108.00	100	100
80.00	46.20	41.91
54.00	10.90	11.02
0.00	0.00	0.00

9.6.34.5
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102812.D Vial: 11
 Acq On : 24 Feb 2016 2:41 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:43:10 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	122630	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	422708	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	249763	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	391099	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	352150	40.00	ppm	0.00
92) Perylene-d12	18.52	264	337445	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	122630	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	422708	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	249763	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	391099	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	352150	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	337445	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	122630	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	391099	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	352150	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	422708	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	249763	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	422708	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	122630	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	352150	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	352150	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	422708	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

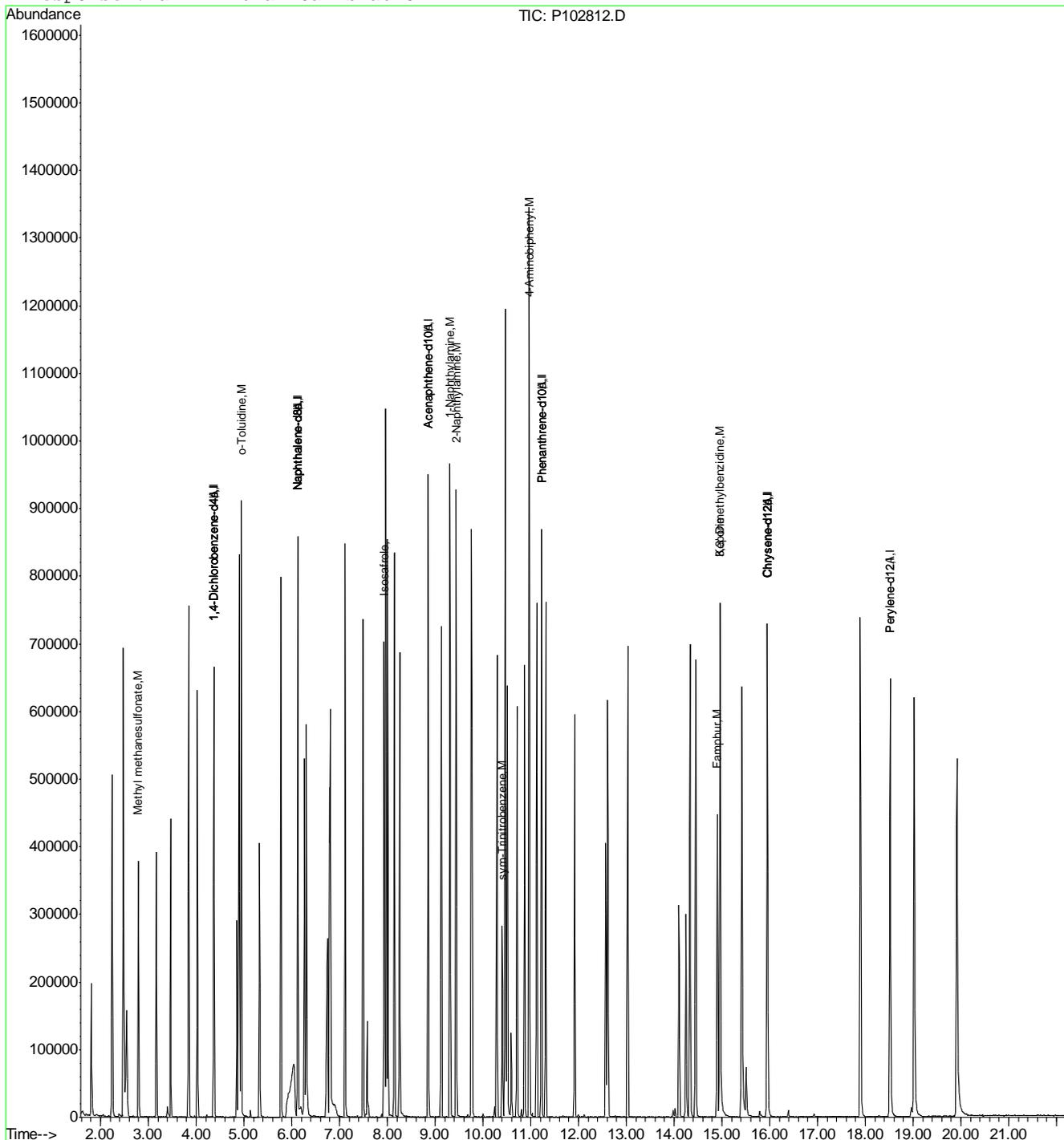
						Qvalue
105) Methyl methanesulfonate	2.79	80	126988	48.92	ppm	98
111) o-Toluidine	4.95	106	288307	45.97	ppm	# 24
120) Isosafrole	7.93	162	140754	165.24	ppm	96
129) 2-Naphthylamine	9.44	143	376816	53.66	ppm	95
130) 1-Naphthylamine	9.31	143	375243	63.59	ppm	99
136) 4-Aminobiphenyl	10.97	169	369752	50.53	ppm	99
146) sym-Trinitrobenzene	10.40	213	27851	44.63	ppm	95
150) Kepone	14.96	272	24844	41.27	ppm	96
151) Famphur	14.90	218	161782	43.02	ppm	95
153) 3,3'-Dimethylbenzidine	14.96	212	298778	90.71	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102812.D MP4513.M Wed Feb 24 16:47:13 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102812.D Vial: 11
 Acq On : 24 Feb 2016 2:41 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:47 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:33:26 2016
 Response via : Initial Calibration



9.6-35
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102813.D Vial: 12
 Acq On : 24 Feb 2016 3:10 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:50:24 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:50:17 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	173337	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	621569	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	315441	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	591640	40.00	ppm	0.00
83) Chrysene-d12	15.97	240	516461	40.00	ppm	0.01
92) Perylene-d12	18.53	264	563012	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	173337	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	621569	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	315441	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	591640	40.00	ppm	0.00
147) Chrysene-d12A	15.97	240	516461	40.00	ppm	0.02
155) Perylene-d12A	18.53	264	563012	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4B	4.37	152	173337	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	591640	40.00	ppm	0.00
163) Chrysene-d12b	15.97	240	516461	40.00	ppm	0.02
165) Naphthalene-d8b	6.13	136	621569	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	315441	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	621569	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	173337	40.00	ppm	-0.08
176) Chrysene-d12c	15.97	240	516461	40.00	ppm	0.01
178) Chrysene-d12d	15.97	240	516461	40.00	ppm	0.01
180) Naphthalene-d8a	6.13	136	621569	40.00	ppm	0.17

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

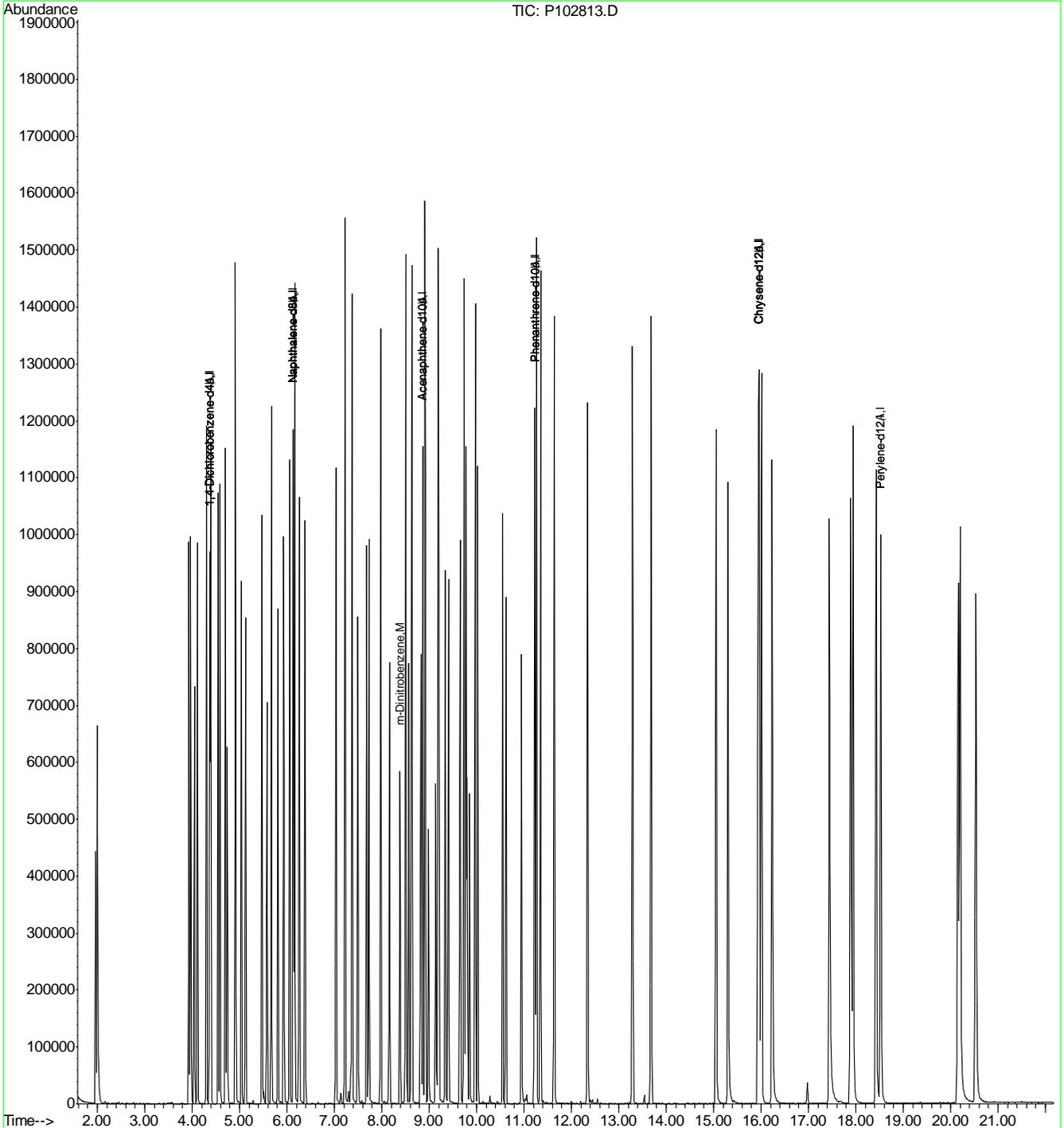
						Qvalue
127) m-Dinitrobenzene	8.39	168	83169	56.62	ppm	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102813.D MP4513.M Wed Feb 24 16:56:07 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102813.D Vial: 12
 Acq On : 24 Feb 2016 3:10 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:56 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:50:17 2016
 Response via : Initial Calibration



9.6.36
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102814.D Vial: 13
 Acq On : 24 Feb 2016 3:40 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 16:59:24 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	145758	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	503784	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	289048	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	455307	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	407845	40.00	ppm	0.00
92) Perylene-d12	18.52	264	413006	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	145758	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	503784	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	289048	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	455307	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	407845	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	413006	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	145758	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	455307	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	407845	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	503784	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	289048	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	503784	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	145758	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	407776	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	407776	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	503784	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
139) Diphenylamine	9.97	169	445760	35.68	ppm	98

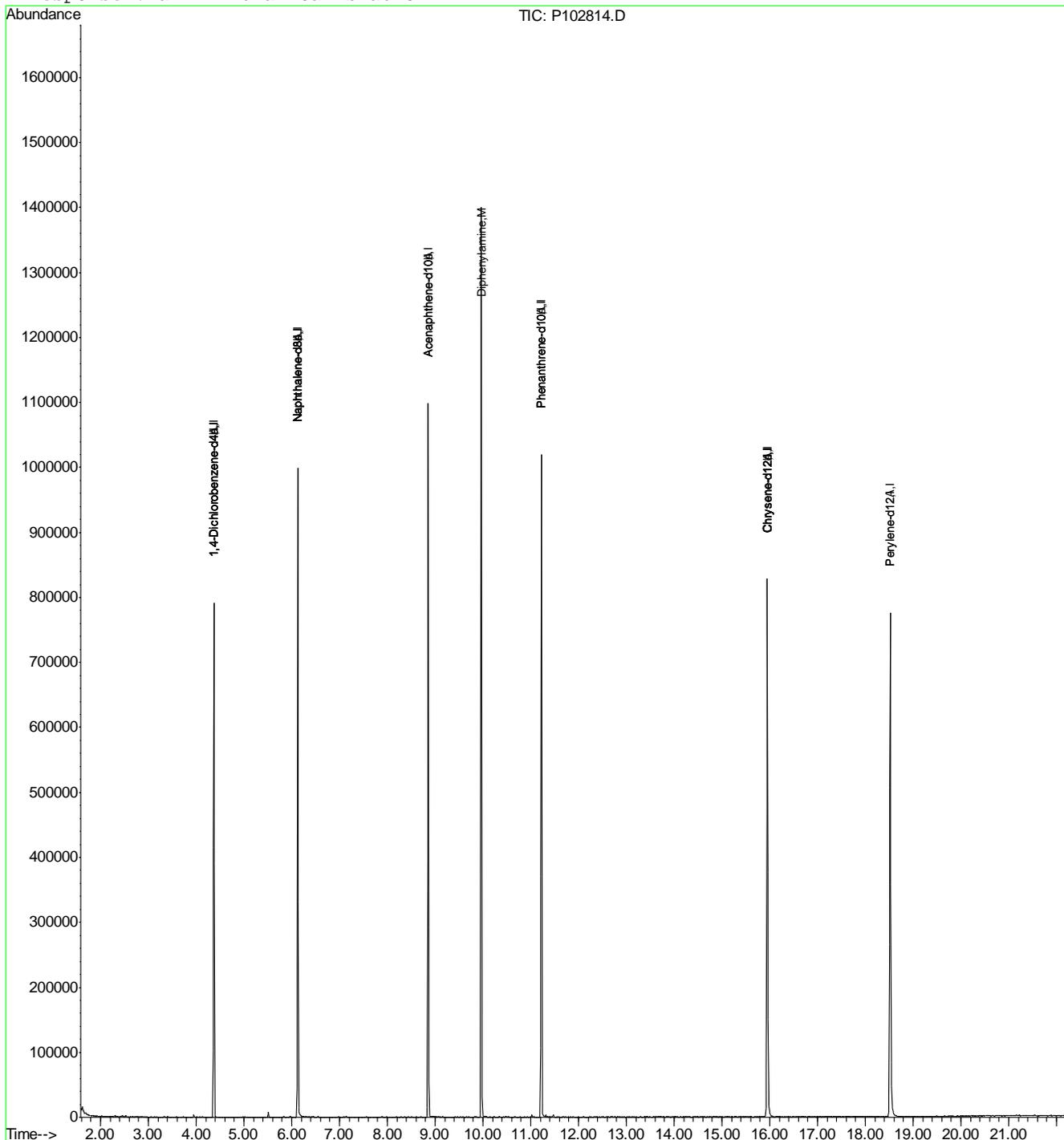
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P102814.D MP4513.M Fri Feb 26 09:41:22 2016

9.6.37
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4515\P102814.D Vial: 13
 Acq On : 24 Feb 2016 3:40 pm Operator: linseyk
 Sample : icv4515-50 Inst : MSP
 Misc : op91338,ep4515 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Feb 24 17:00 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Feb 24 16:59:22 2016
 Response via : Initial Calibration



9.6.37
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
 Acq On : 2 Mar 2016 5:10 pm Operator: sarad
 Sample : ic4524-100 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	176183	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	619829	40.00	ppm	0.00
47) Acenaphthene-d10	8.83	164	355407	40.00	ppm	0.00
69) Phenanthrene-d10	11.20	188	512187	40.00	ppm	0.00
83) Chrysene-d12	15.92	240	467796	40.00	ppm	0.00
92) Perylene-d12	18.48	264	486176	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	176183	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	619829	40.00	ppm	-0.02
121) Acenaphthene-d10A	8.83	164	355407	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.20	188	512187	40.00	ppm	-0.03
147) Chrysene-d12A	15.92	240	467796	40.00	ppm	-0.03
155) Perylene-d12A	18.48	264	486176	40.00	ppm	-0.04
159) 1,4-Dichlorobenzene-d4b	4.35	152	176183	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.20	188	512187	40.00	ppm	-0.03
163) Chrysene-d12b	15.92	240	467796	40.00	ppm	-0.03
165) Naphthalene-d8b	6.10	136	619829	40.00	ppm	-0.02
167) Acenaphthene-d10b	8.83	164	355407	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	619829	40.00	ppm	-0.02
174) 1,4-Dichlorobenzene-d4a	4.35	152	176183	40.00	ppm	-0.11
176) Chrysene-d12c	15.92	240	467796	40.00	ppm	-0.03
178) Chrysene-d12d	15.92	240	467796	40.00	ppm	-0.03
180) Naphthalene-d8a	6.10	136	619829	40.00	ppm	0.14

System Monitoring Compounds

5) 2-Fluorophenol	2.97	112	570985	93.30	ppm	0.00
Spiked Amount	50.000		Recovery	=	186.60%	
8) Phenol-d5	3.96	99	627844	83.61	ppm	0.00
Spiked Amount	50.000		Recovery	=	167.22%	
25) Nitrobenzene-d5	5.08	82	582783	98.09	ppm	0.00
Spiked Amount	50.000		Recovery	=	196.18%	
51) 2-Fluorobiphenyl	7.80	172	870565	80.04	ppm	0.00
Spiked Amount	50.000		Recovery	=	160.08%	
73) 2,4,6-Tribromophenol	10.11	330	131612	118.89	ppm	0.00
Spiked Amount	50.000		Recovery	=	237.78%	
85) Terphenyl-d14	14.02	244	882195	98.61	ppm	0.00
Spiked Amount	50.000		Recovery	=	197.22%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.78	88	275570	89.87	ppm	98
3) Pyridine	1.97	79	625045	93.10	ppm	92
4) N-Nitrosodimethylamine	1.94	42	238728	96.60	ppm	94
6) Indene	4.68	116	842496	86.20	ppm	97
7) Cumene	3.44	105	1110136	77.47	ppm	94
9) Phenol	3.98	94	709824	95.03	ppm	89
10) Aniline	3.95	93	638029	73.70	ppm	77
11) bis(2-Chloroethyl)ether	4.03	93	497004	93.03	ppm	98
12) 2-Chlorophenol	4.12	128	498225	86.03	ppm	95
13) Decane	4.17	43	369574	82.31	ppm	96
14) 1,3-Dichlorobenzene	4.28	146	545682	82.60	ppm	98
15) 1,4-Dichlorobenzene	4.37	146	531119	83.51	ppm	97

(#) = qualifier out of range (m) = manual integration

P103011.D MP4524.M Thu Mar 03 09:00:36 2016

9.6.38
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
 Acq On : 2 Mar 2016 5:10 pm Operator: sarad
 Sample : ic4524-100 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.54	108	302600	85.76	ppm	96
17) 1,2-Dichlorobenzene	4.57	146	481791	78.82	ppm	95
18) Acetophenone	4.88	105	684389	85.99	ppm	96
19) 2-Methylphenol	4.73	108	455556	92.82	ppm	100
20) 2,2'-oxybis(1-Chloropropan	4.71	121	169965	94.83	ppm	# 99
21) 3&4-Methylphenol	4.94	108	497101	96.56	ppm	97
22) n-Nitroso-di-n-propylamine	4.90	70	349466	94.00	ppm	98
23) Hexachloroethane	5.01	201	189667	96.96	ppm	92
26) Nitrobenzene	5.11	77	529194	92.25	ppm	96
27) Quinoline	6.66	129	1009644	91.70	ppm	97
28) Isophorone	5.45	82	929548	91.48	ppm	97
29) 2-Nitrophenol	5.56	139	291563	100.49	ppm	88
30) 2,4-Dimethylphenol	5.69	107	498439	97.43	ppm	96
31) Benzoic acid	5.96	105	420356	112.35	ppm	96
32) bis(2-Chloroethoxy)methane	5.79	93	572823	92.08	ppm	97
33) 2,4-Dichlorophenol	5.95	162	405260	96.09	ppm	97
34) 2,6-Dichlorophenol	6.26	162	380206	93.29	ppm	96
35) 1,3,5-Trichlorobenzene	5.58	180	406052	81.82	ppm	98
36) 1,2,4-Trichlorobenzene	6.03	180	413411	84.87	ppm	99
37) 1,2,3-Trichlorobenzene	6.36	180	363649	80.87	ppm	98
38) Naphthalene	6.14	128	1217903	80.13	ppm	95
39) 4-Chloroaniline	6.25	127	554419	82.52	ppm	99
40) 2,3-Dichloroaniline	7.65	161	496811	94.91	ppm	96
41) Caprolactam	6.79	55	219369m	107.52	ppm	
42) Hexachlorobutadiene	6.36	225	209515	93.01	ppm	99
43) 4-Chloro-3-methylphenol	7.09	107	462362	99.17	ppm	# 42
44) 2-Methylnaphthalene	7.20	141	706818	83.64	ppm	97
45) 1-Methylnaphthalene	7.35	142	869043	84.23	ppm	97
46) Dimethylnaphthalene	8.19	156	769096	85.59	ppm	98
48) Hexachlorocyclopentadiene	7.47	237	490346	194.12	ppm	98
49) 2,4,6-Trichlorophenol	7.69	196	276998	101.75	ppm	99
50) 2,4,5-Trichlorophenol	7.78	196	293890	101.38	ppm	99
52) 2-Chloronaphthalene	7.96	162	758937	82.32	ppm	97
53) Biphenyl	7.95	154	928981	76.13	ppm	96
54) 2-Nitroaniline	8.16	65	285397	105.21	ppm	95
55) Dimethylphthalate	8.48	163	970545	90.20	ppm	97
56) Acenaphthylene	8.60	152	1222694	78.81	ppm	95
57) 2,6-Dinitrotoluene	8.55	165	242513	110.57	ppm	98
58) 3-Nitroaniline	8.81	138	278297	96.07	ppm	92
59) Acenaphthene	8.88	153	785358	83.79	ppm	100
60) 2,4-Dinitrophenol	8.98	184	287438	203.82	ppm	98
61) 4-Nitrophenol	9.26	109	170879	114.27	ppm	97
62) Dibenzofuran	9.17	168	1087992	84.28	ppm	97
63) 2,4-Dinitrotoluene	9.19	165	311807	103.79	ppm	99
64) 2,3,4,6-Tetrachlorophenol	9.40	232	230485	108.28	ppm	98
65) Diethylphthalate	9.62	149	968281	89.11	ppm	97
66) Fluorene	9.71	166	921407	88.88	ppm	99
67) 4-Chlorophenyl-phenylether	9.74	204	422718	93.14	ppm	98
68) 4-Nitroaniline	9.81	138	278252	106.61	ppm	96

(#) = qualifier out of range (m) = manual integration
 P103011.D MP4524.M Thu Mar 03 09:00:36 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
 Acq On : 2 Mar 2016 5:10 pm Operator: sarad
 Sample : ic4524-100 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.84	198	196683	105.35	ppm	97
71) n-Nitrosodiphenylamine	9.95	169	700545	101.13	ppm	99
72) 1,2-Diphenylhydrazine	9.99	77	928012	94.85	ppm	99
74) 4-Bromophenyl-phenylether	10.52	248	251581	105.30	ppm	100
75) Hexachlorobenzene	10.59	284	257612	102.37	ppm	92
76) Pentachlorophenol	10.94	266	332916	203.41	ppm	97
77) Phenanthrene	11.24	178	1156803	88.24	ppm	96
78) Anthracene	11.32	178	1189353	89.49	ppm	96
79) Carbazole	11.62	167	1226554	94.89	ppm	97
80) Di-n-butylphthalate	12.30	149	1524547	95.65	ppm	96
81) Fluoranthene	13.26	202	1310898	99.03	ppm	99
82) Octadecane	11.18	57	481755	105.14	ppm	95
84) Pyrene	13.65	202	1350284	87.92	ppm	99
86) Butylbenzylphthalate	15.01	149	765646	104.04	ppm	97
87) Butyl stearate	15.23	56	363522	105.15	ppm	97
88) Benzo[a]anthracene	15.90	228	1191767	96.57	ppm	98
89) 3,3'-Dichlorobenzidine	15.93	252	473076	111.18	ppm	97
90) Chrysene	15.98	228	1142770	93.42	ppm	98
91) bis(2-Ethylhexyl)phthalate	16.18	149	991080	101.19	ppm	92
93) Di-n-octylphthalate	17.39	149	1680169	99.74	ppm	95
94) Benzo[b]fluoranthene	17.85	252	1296844	98.82	ppm	97
95) Benzo[k]fluoranthene	17.92	252	1156230	89.91	ppm	98
96) Benzo[a]pyrene	18.39	252	1156450	97.79	ppm	97
97) Indeno[1,2,3-cd]pyrene	20.12	276	1128833	106.11	ppm	95
98) Dibenz(a,h)acridine	19.81	279	1014285	105.93	ppm	98
99) Dibenz[a,h]anthracene	20.17	278	1149581	103.89	ppm	96
100) 7,12-Dimethylbenz(a)anthra	17.87	256	576640	103.98	ppm	98
101) Benzo[g,h,i]perylene	20.50	276	1181370	101.52	ppm	98

9.6.38
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103011.D MP4524.M Thu Mar 03 09:00:36 2016

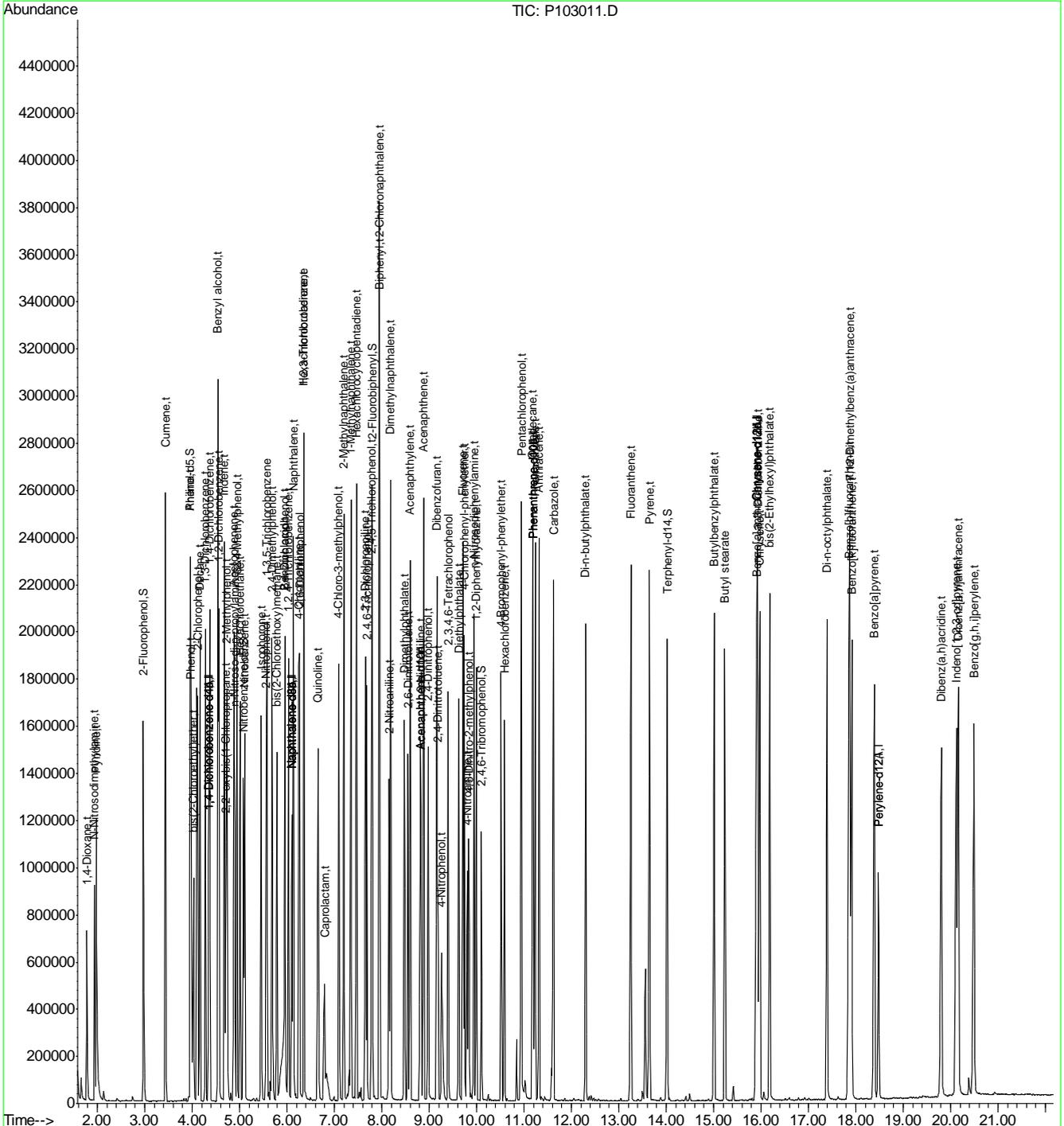
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D
 Acq On : 2 Mar 2016 5:10 pm
 Sample : ic4524-100
 Misc : op91633,ep4524
 MS Integration Params: rteint.p
 Quant Time: Mar 3 9:00 2016

Vial: 2
 Operator: sarad
 Inst : MSP
 Multiplr: 1.00

Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration



9 6:38 9

Manual Integration Approval Summary

Sample Number: EP4524-IC4524 Method: SW846 8270D
Lab FileID: P103011.D Analyst approved: 03/03/16 11:25 Linsey Kirschmann
Injection Time: 03/02/16 17:10 Supervisor approved: 03/03/16 15:11 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.79	Split peak

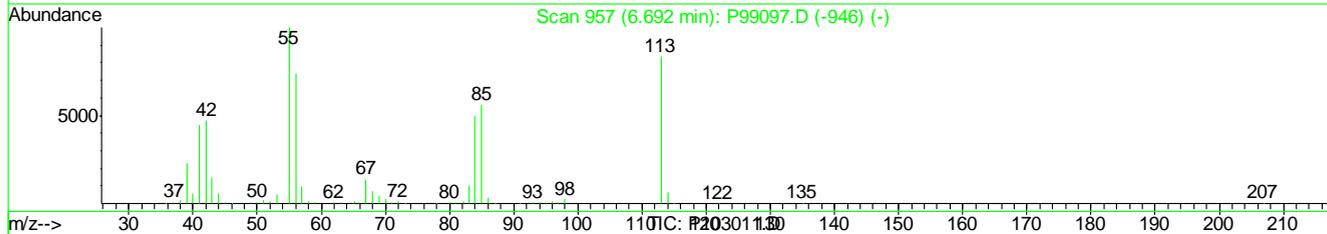
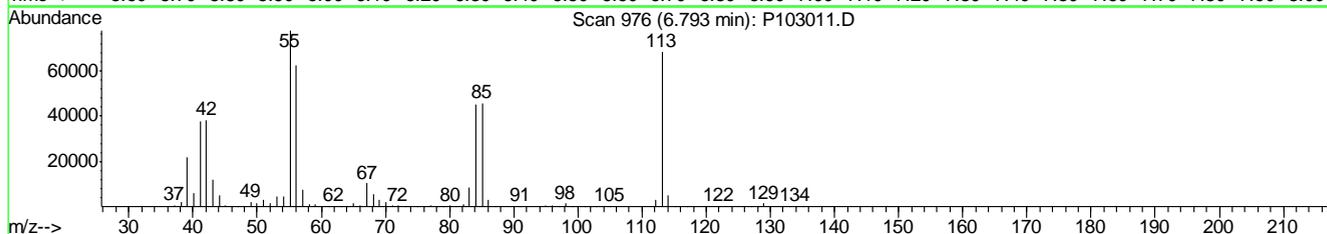
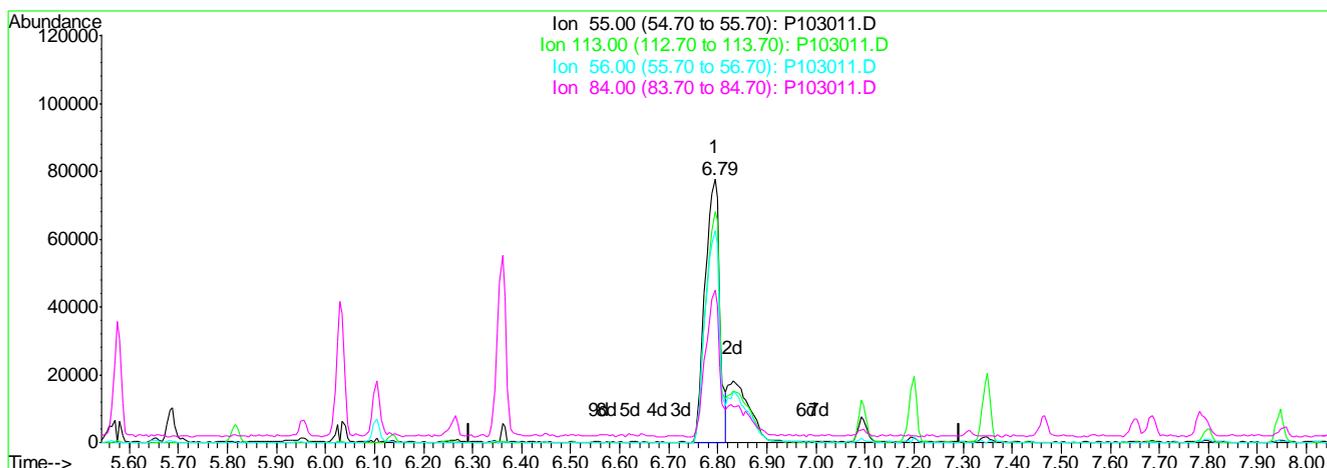
9.6.38.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
 Acq On : 2 Mar 2016 5:10 pm Operator: sarad
 Sample : ic4524-100 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 8:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Multiple Level Calibration



(41) Caprolactam (t)

6.79min 79.82ppm

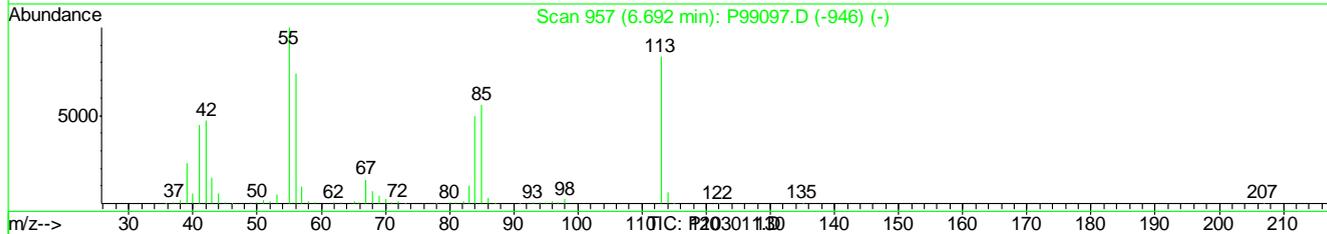
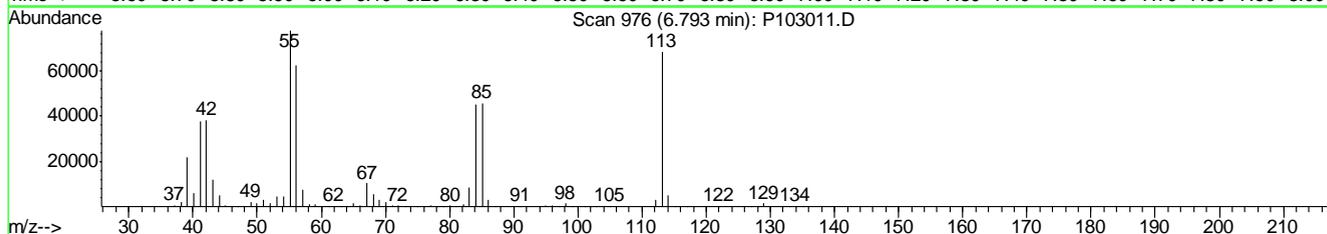
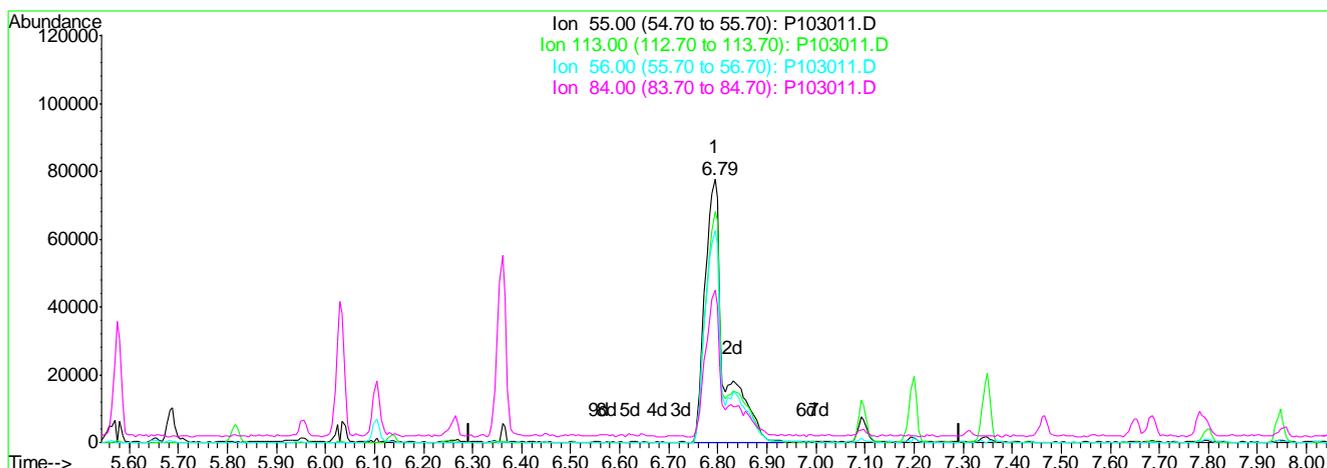
response 162838

Ion	Exp%	Act%
55.00	100	100
113.00	88.10	87.95
56.00	77.60	81.09
84.00	52.10	55.97

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
 Acq On : 2 Mar 2016 5:10 pm Operator: sarad
 Sample : ic4524-100 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 8:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Multiple Level Calibration



(41) Caprolactam (t)

6.79min 107.52ppm m

response 219369

Ion	Exp%	Act%
55.00	100	100
113.00	88.10	87.80
56.00	77.60	80.48
84.00	52.10	57.88

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
 Acq On : 2 Mar 2016 5:40 pm Operator: sarad
 Sample : ic4524-80 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	178586	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	620528	40.00	ppm	0.00
47) Acenaphthene-d10	8.83	164	360281	40.00	ppm	0.00
69) Phenanthrene-d10	11.20	188	528608	40.00	ppm	0.00
83) Chrysene-d12	15.92	240	473646	40.00	ppm	0.00
92) Perylene-d12	18.48	264	491928	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	178586	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	620528	40.00	ppm	-0.02
121) Acenaphthene-d10A	8.83	164	360281	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.20	188	528608	40.00	ppm	-0.03
147) Chrysene-d12A	15.92	240	473646	40.00	ppm	-0.03
155) Perylene-d12A	18.48	264	491928	40.00	ppm	-0.04
159) 1,4-Dichlorobenzene-d4b	4.35	152	178586	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.20	188	528608	40.00	ppm	-0.03
163) Chrysene-d12b	15.92	240	473646	40.00	ppm	-0.03
165) Naphthalene-d8b	6.10	136	620528	40.00	ppm	-0.02
167) Acenaphthene-d10b	8.83	164	360281	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	620528	40.00	ppm	-0.02
174) 1,4-Dichlorobenzene-d4a	4.35	152	178586	40.00	ppm	-0.11
176) Chrysene-d12c	15.92	240	473646	40.00	ppm	-0.04
178) Chrysene-d12d	15.92	240	473646	40.00	ppm	-0.04
180) Naphthalene-d8a	6.10	136	620528	40.00	ppm	0.14
System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	465094	74.97	ppm	0.00
Spiked Amount	50.000		Recovery	=	149.94%	
8) Phenol-d5	3.96	99	523320	68.75	ppm	0.00
Spiked Amount	50.000		Recovery	=	137.50%	
25) Nitrobenzene-d5	5.08	82	471793	79.32	ppm	0.00
Spiked Amount	50.000		Recovery	=	158.64%	
51) 2-Fluorobiphenyl	7.80	172	732307	66.42	ppm	0.00
Spiked Amount	50.000		Recovery	=	132.84%	
73) 2,4,6-Tribromophenol	10.10	330	106345	93.08	ppm	0.00
Spiked Amount	50.000		Recovery	=	186.16%	
85) Terphenyl-d14	14.02	244	728869	80.47	ppm	0.00
Spiked Amount	50.000		Recovery	=	160.94%	
Target Compounds						
2) 1,4-Dioxane	1.78	88	222785	71.68	ppm	98
3) Pyridine	1.97	79	500405	73.53	ppm	93
4) N-Nitrosodimethylamine	1.94	42	194874	77.79	ppm	93
6) Indene	4.68	116	704226	71.09	ppm	96
7) Cumene	3.44	105	946025	65.13	ppm	96
9) Phenol	3.98	94	583308	77.04	ppm	92
10) Aniline	3.95	93	537736	61.28	ppm	78
11) bis(2-Chloroethyl)ether	4.03	93	400655	73.98	ppm	97
12) 2-Chlorophenol	4.12	128	416149	70.89	ppm	96
13) Decane	4.17	43	310686	68.27	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	458830	68.52	ppm	100
15) 1,4-Dichlorobenzene	4.37	146	442639	68.66	ppm	98

(#) = qualifier out of range (m) = manual integration

P103012.D MP4524.M Thu Mar 03 09:01:53 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
 Acq On : 2 Mar 2016 5:40 pm Operator: sarad
 Sample : ic4524-80 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.54	108	252119	70.49	ppm	97
17) 1,2-Dichlorobenzene	4.57	146	404580	65.29	ppm	97
18) Acetophenone	4.88	105	566522	70.23	ppm	97
19) 2-Methylphenol	4.73	108	367071	73.78	ppm	100
20) 2,2'-oxybis(1-Chloropropan	4.72	121	136332	75.04	ppm	# 95
21) 3&4-Methylphenol	4.94	108	410262	78.62	ppm	99
22) n-Nitroso-di-n-propylamine	4.90	70	286991	76.16	ppm	98
23) Hexachloroethane	5.01	201	153332	77.33	ppm	92
26) Nitrobenzene	5.11	77	436257	75.96	ppm	97
27) Quinoline	6.65	129	829668	75.27	ppm	97
28) Isophorone	5.45	82	762842	74.99	ppm	98
29) 2-Nitrophenol	5.56	139	238435	82.08	ppm	90
30) 2,4-Dimethylphenol	5.68	107	407424	79.55	ppm	99
31) Benzoic acid	5.94	105	344557	91.99	ppm	98
32) bis(2-Chloroethoxy)methane	5.79	93	473263	75.99	ppm	99
33) 2,4-Dichlorophenol	5.95	162	338773	80.23	ppm	98
34) 2,6-Dichlorophenol	6.26	162	314906	77.18	ppm	97
35) 1,3,5-Trichlorobenzene	5.58	180	336682	67.77	ppm	99
36) 1,2,4-Trichlorobenzene	6.03	180	344599	70.67	ppm	98
37) 1,2,3-Trichlorobenzene	6.36	180	303801	67.48	ppm	98
38) Naphthalene	6.14	128	1040109	68.36	ppm	96
39) 4-Chloroaniline	6.25	127	462641	68.78	ppm	98
40) 2,3-Dichloroaniline	7.65	161	408885	78.02	ppm	96
41) Caprolactam	6.78	55	174783	85.57	ppm	96
42) Hexachlorobutadiene	6.35	225	172834	76.64	ppm	100
43) 4-Chloro-3-methylphenol	7.09	107	375944	80.55	ppm	# 30
44) 2-Methylnaphthalene	7.19	141	595854	70.43	ppm	97
45) 1-Methylnaphthalene	7.35	142	729873	70.66	ppm	99
46) Dimethylnaphthalene	8.19	156	636599	70.76	ppm	99
48) Hexachlorocyclopentadiene	7.47	237	397814	155.36	ppm	98
49) 2,4,6-Trichlorophenol	7.69	196	229870	83.30	ppm	99
50) 2,4,5-Trichlorophenol	7.78	196	236902	80.62	ppm	98
52) 2-Chloronaphthalene	7.95	162	632054	67.63	ppm	98
53) Biphenyl	7.94	154	796865	64.42	ppm	98
54) 2-Nitroaniline	8.15	65	229126	83.33	ppm	94
55) Dimethylphthalate	8.48	163	802593	73.58	ppm	97
56) Acenaphthylene	8.60	152	1034752	65.79	ppm	98
57) 2,6-Dinitrotoluene	8.55	165	198006	89.06	ppm	99
58) 3-Nitroaniline	8.81	138	228215	77.72	ppm	91
59) Acenaphthene	8.88	153	652927	68.71	ppm	98
60) 2,4-Dinitrophenol	8.97	184	230535	164.09	ppm	100
61) 4-Nitrophenol	9.26	109	133510	88.07	ppm	99
62) Dibenzofuran	9.16	168	920930	70.38	ppm	98
63) 2,4-Dinitrotoluene	9.18	165	253510	80.31	ppm	100
64) 2,3,4,6-Tetrachlorophenol	9.40	232	187545	86.91	ppm	98
65) Diethylphthalate	9.62	149	804416	73.03	ppm	97
66) Fluorene	9.70	166	770464	73.31	ppm	98
67) 4-Chlorophenyl-phenylether	9.74	204	351230	76.35	ppm	96
68) 4-Nitroaniline	9.80	138	222666	84.16	ppm	93

(#) = qualifier out of range (m) = manual integration

P103012.D MP4524.M Thu Mar 03 09:01:53 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
 Acq On : 2 Mar 2016 5:40 pm Operator: sarad
 Sample : ic4524-80 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.83	198	155961	82.07	ppm	94
71) n-Nitrosodiphenylamine	9.95	169	583030	81.55	ppm	99
72) 1,2-Diphenylhydrazine	9.99	77	778787	77.13	ppm	99
74) 4-Bromophenyl-phenylether	10.52	248	204104	82.78	ppm	96
75) Hexachlorobenzene	10.59	284	208450	80.26	ppm	96
76) Pentachlorophenol	10.94	266	268273	150.32	ppm	98
77) Phenanthrene	11.23	178	970432	71.73	ppm	97
78) Anthracene	11.31	178	1003378	73.15	ppm	98
79) Carbazole	11.62	167	1030855	77.27	ppm	98
80) Di-n-butylphthalate	12.30	149	1289557	78.39	ppm	96
81) Fluoranthene	13.25	202	1105211	80.90	ppm	99
82) Octadecane	11.18	57	406806	86.03	ppm	95
84) Pyrene	13.65	202	1138686	73.23	ppm	97
86) Butylbenzylphthalate	15.00	149	630046	84.56	ppm	96
87) Butyl stearate	15.23	56	306617	87.60	ppm	95
88) Benzo[a]anthracene	15.90	228	980886	78.50	ppm	99
89) 3,3'-Dichlorobenzidine	15.93	252	385724	89.53	ppm	96
90) Chrysene	15.97	228	934208	75.43	ppm	99
91) bis(2-Ethylhexyl)phthalate	16.18	149	832867	83.98	ppm	95
93) Di-n-octylphthalate	17.39	149	1403680	73.23	ppm	96
94) Benzo[b]fluoranthene	17.85	252	1069927	80.57	ppm	99
95) Benzo[k]fluoranthene	17.91	252	946696	72.76	ppm	96
96) Benzo[a]pyrene	18.39	252	948815	79.29	ppm	98
97) Indeno[1,2,3-cd]pyrene	20.11	276	891968	82.87	ppm	100
98) Dibenz(a,h)acridine	19.80	279	835853	86.28	ppm	100
99) Dibenz[a,h]anthracene	20.15	278	929880	83.06	ppm	97
100) 7,12-Dimethylbenz(a)anthra	17.86	256	476117	84.85	ppm	98
101) Benzo[g,h,i]perylene	20.49	276	949594	80.65	ppm	98

9.6.39

9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103012.D MP4524.M Thu Mar 03 09:01:53 2016

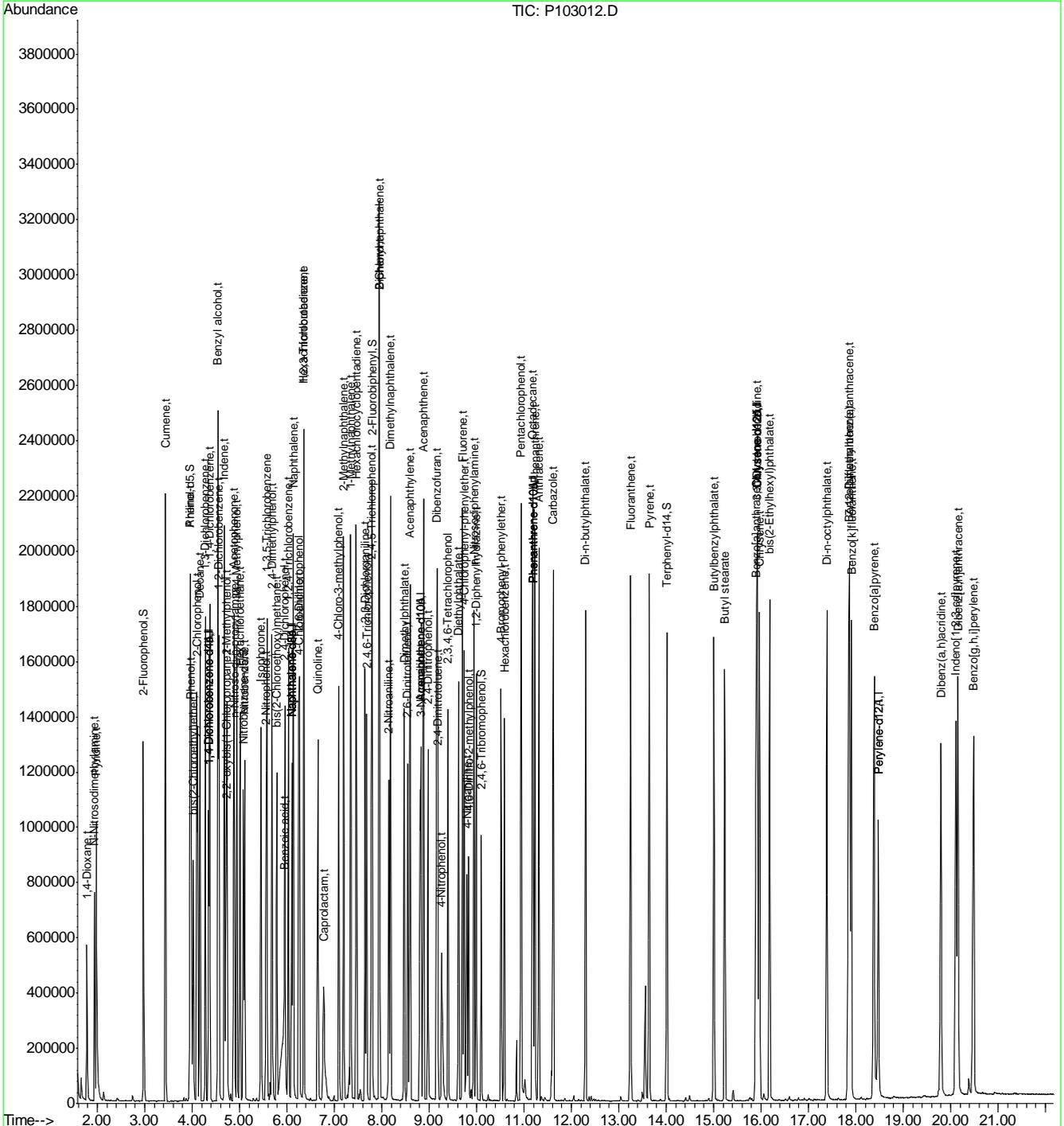
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D
Acq On : 2 Mar 2016 5:40 pm
Sample : ic4524-80
Misc : op91633,ep4524
MS Integration Params: rteint.p
Quant Time: Mar 3 9:01 2016

Vial: 3
Operator: sarad
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
 Acq On : 2 Mar 2016 6:09 pm Operator: sarad
 Sample : ic4524-10 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:05:16 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155426	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	552817	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	324485	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	498966	40.00	ppm	-0.01
83) Chrysene-d12	15.91	240	463163	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	421054	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155426	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	552817	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	324485	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	498966	40.00	ppm	-0.04
147) Chrysene-d12A	15.91	240	463163	40.00	ppm	-0.04
155) Perylene-d12A	18.47	264	421054	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155426	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	498966	40.00	ppm	-0.04
163) Chrysene-d12b	15.91	240	463163	40.00	ppm	-0.04
165) Naphthalene-d8b	6.10	136	552817	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	324485	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	552817	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155426	40.00	ppm	-0.11
176) Chrysene-d12c	15.91	240	463163	40.00	ppm	-0.05
178) Chrysene-d12d	15.91	240	463163	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	552817	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	2.97	112	55136	10.21	ppm	0.00
Spiked Amount	50.000		Recovery	=	20.42%	
8) Phenol-d5	3.97	99	68507	10.34	ppm	0.01
Spiked Amount	50.000		Recovery	=	20.68%	
25) Nitrobenzene-d5	5.07	82	56575	10.68	ppm	-0.01
Spiked Amount	50.000		Recovery	=	21.36%	
51) 2-Fluorobiphenyl	7.79	172	102683	10.34	ppm	-0.02
Spiked Amount	50.000		Recovery	=	20.68%	
73) 2,4,6-Tribromophenol	10.09	330	10993	10.19	ppm	-0.02
Spiked Amount	50.000		Recovery	=	20.38%	
85) Terphenyl-d14	14.01	244	88944	10.04	ppm	-0.02
Spiked Amount	50.000		Recovery	=	20.08%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.78	88	24506	9.06	ppm	95
3) Pyridine	1.97	79	63167	10.66	ppm	93
4) N-Nitrosodimethylamine	1.94	42	22730	10.43	ppm	94
6) Indene	4.68	116	91808	10.65	ppm	97
7) Cumene	3.44	105	131818	10.43	ppm	99
9) Phenol	3.99	94	69485	10.54	ppm	97
10) Aniline	3.95	93	77890	10.20	ppm	99
11) bis(2-Chloroethyl)ether	4.02	93	49772	10.56	ppm	97
12) 2-Chlorophenol	4.12	128	54613	10.69	ppm	99
13) Decane	4.16	43	42382	10.70	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	60103	10.31	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	57065	10.17	ppm	99

(#) = qualifier out of range (m) = manual integration

P103013.D MP4524.M Thu Mar 03 09:06:42 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
 Acq On : 2 Mar 2016 6:09 pm Operator: sarad
 Sample : ic4524-10 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:05:16 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.53	108	31766	10.21	ppm	98
17) 1,2-Dichlorobenzene	4.56	146	54367	10.08	ppm	99
18) Acetophenone	4.87	105	70625	10.06	ppm	99
19) 2-Methylphenol	4.73	108	45378	10.48	ppm	95
20) 2,2'-oxybis(1-Chloropropan	4.71	121	16189	10.24	ppm	# 99
21) 3&4-Methylphenol	4.94	108	48892	10.77	ppm	95
22) n-Nitroso-di-n-propylamine	4.88	70	36256	11.06	ppm	96
23) Hexachloroethane	5.01	201	18214	10.55	ppm	91
26) Nitrobenzene	5.10	77	54545	10.66	ppm	97
27) Quinoline	6.63	129	97447	9.92	ppm	97
28) Isophorone	5.44	82	94489	10.43	ppm	97
29) 2-Nitrophenol	5.55	139	26353	10.18	ppm	86
30) 2,4-Dimethylphenol	5.68	107	44496	9.75	ppm	96
31) Benzoic acid	5.82	105	25492	7.64	ppm	91
32) bis(2-Chloroethoxy)methane	5.78	93	56753	10.23	ppm	98
33) 2,4-Dichlorophenol	5.95	162	40441	10.75	ppm	98
34) 2,6-Dichlorophenol	6.25	162	38262	10.53	ppm	98
35) 1,3,5-Trichlorobenzene	5.57	180	44259	10.00	ppm	97
36) 1,2,4-Trichlorobenzene	6.02	180	43968	10.12	ppm	94
37) 1,2,3-Trichlorobenzene	6.36	180	41326	10.30	ppm	97
38) Naphthalene	6.13	128	139418	10.29	ppm	97
39) 4-Chloroaniline	6.24	127	61411	10.25	ppm	98
40) 2,3-Dichloroaniline	7.64	161	49954	10.70	ppm	99
41) Caprolactam	6.71	55	17813	9.79	ppm	97
42) Hexachlorobutadiene	6.35	225	21189	10.55	ppm	99
43) 4-Chloro-3-methylphenol	7.09	107	43449	10.45	ppm	99
44) 2-Methylnaphthalene	7.19	141	79541	10.55	ppm	99
45) 1-Methylnaphthalene	7.34	142	95406	10.37	ppm	98
46) Dimethylnaphthalene	8.18	156	83542	10.42	ppm	100
48) Hexachlorocyclopentadiene	7.46	237	44535	19.31	ppm	96
49) 2,4,6-Trichlorophenol	7.67	196	26349	10.60	ppm	95
50) 2,4,5-Trichlorophenol	7.78	196	27159	10.26	ppm	96
52) 2-Chloronaphthalene	7.94	162	88123	10.47	ppm	99
53) Biphenyl	7.94	154	114437	10.27	ppm	97
54) 2-Nitroaniline	8.13	65	25270	10.20	ppm	92
55) Dimethylphthalate	8.46	163	100109	10.19	ppm	99
56) Acenaphthylene	8.59	152	139479	9.85	ppm	97
57) 2,6-Dinitrotoluene	8.53	165	22361	11.17	ppm	100
58) 3-Nitroaniline	8.79	138	25976	9.82	ppm	98
59) Acenaphthene	8.87	153	85464	9.99	ppm	96
60) 2,4-Dinitrophenol	8.96	184	14131	16.88	ppm	93
61) 4-Nitrophenol	9.28	109	12377	9.07	ppm	91
62) Dibenzofuran	9.15	168	121720	10.33	ppm	97
63) 2,4-Dinitrotoluene	9.17	165	28231	9.50	ppm	94
64) 2,3,4,6-Tetrachlorophenol	9.39	232	19384	9.97	ppm	94
65) Diethylphthalate	9.60	149	99740	10.05	ppm	97
66) Fluorene	9.69	166	100352	10.60	ppm	98
67) 4-Chlorophenyl-phenylether	9.74	204	44163	10.66	ppm	96
68) 4-Nitroaniline	9.76	138	24865	10.43	ppm	95

(#) = qualifier out of range (m) = manual integration

P103013.D MP4524.M Thu Mar 03 09:06:42 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
 Acq On : 2 Mar 2016 6:09 pm Operator: sarad
 Sample : ic4524-10 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:05:16 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.81	198	12476	11.42	ppm	90
71) n-Nitrosodiphenylamine	9.93	169	71605	10.61	ppm	99
72) 1,2-Diphenylhydrazine	9.98	77	101728	10.67	ppm	95
74) 4-Bromophenyl-phenylether	10.51	248	24024	10.32	ppm	97
75) Hexachlorobenzene	10.58	284	26016	10.61	ppm	88
76) Pentachlorophenol	10.93	266	23396	15.80	ppm	97
77) Phenanthrene	11.22	178	129538	10.14	ppm	98
78) Anthracene	11.30	178	133090	10.28	ppm	98
79) Carbazole	11.61	167	134489	10.68	ppm	99
80) Di-n-butylphthalate	12.30	149	164165	10.57	ppm	98
81) Fluoranthene	13.24	202	140545	10.90	ppm	97
82) Octadecane	11.17	57	50585	11.33	ppm	97
84) Pyrene	13.63	202	149529	9.83	ppm	98
86) Butylbenzylphthalate	15.00	149	68466	9.40	ppm	98
87) Butyl stearate	15.22	56	32764	9.57	ppm	96
88) Benzo[a]anthracene	15.89	228	115379	9.44	ppm	99
89) 3,3'-Dichlorobenzidine	15.91	252	40668	9.65	ppm	96
90) Chrysene	15.95	228	118321	9.77	ppm	97
91) bis(2-Ethylhexyl)phthalate	16.17	149	88395	9.12	ppm	99
93) Di-n-octylphthalate	17.38	149	146382	9.00	ppm	98
94) Benzo[b]fluoranthene	17.83	252	121995	10.73	ppm	97
95) Benzo[k]fluoranthene	17.87	252	116254	10.44	ppm	99
96) Benzo[a]pyrene	18.36	252	110921	10.83	ppm	99
97) Indeno[1,2,3-cd]pyrene	20.09	276	94257	10.23	ppm	95
98) Dibenz(a,h)acridine	19.78	279	89244	10.76	ppm	100
99) Dibenz[a,h]anthracene	20.13	278	100671	10.51	ppm	99
100) 7,12-Dimethylbenz(a)anthra	17.84	256	47828	9.96	ppm	97
101) Benzo[g,h,i]perylene	20.45	276	106051	10.52	ppm	97

9.6.40
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103013.D MP4524.M Thu Mar 03 09:06:42 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
 Acq On : 2 Mar 2016 6:39 pm Operator: sarad
 Sample : ic4524-5 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155607	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	540889	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	318775	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	495165	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	453126	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	406577	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155607	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	540889	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	318775	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	495165	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	453126	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	406577	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155607	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	495165	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	453126	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	540889	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	318775	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	540889	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155607	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	453126	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	453126	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	540889	40.00	ppm	0.13
System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	26969	4.99	ppm	0.00
Spiked Amount	50.000		Recovery	=	9.98%	
8) Phenol-d5	3.97	99	33602	5.07	ppm	0.01
Spiked Amount	50.000		Recovery	=	10.14%	
25) Nitrobenzene-d5	5.07	82	26904	5.19	ppm	-0.01
Spiked Amount	50.000		Recovery	=	10.38%	
51) 2-Fluorobiphenyl	7.79	172	51547	5.28	ppm	-0.02
Spiked Amount	50.000		Recovery	=	10.56%	
73) 2,4,6-Tribromophenol	10.09	330	4944	4.62	ppm	-0.02
Spiked Amount	50.000		Recovery	=	9.24%	
85) Terphenyl-d14	14.01	244	42527	4.91	ppm	-0.02
Spiked Amount	50.000		Recovery	=	9.82%	
Target Compounds						
2) 1,4-Dioxane	1.78	88	13932	5.14	ppm	96
3) Pyridine	1.98	79	32165	5.42	ppm	98
4) N-Nitrosodimethylamine	1.94	42	11536	5.29	ppm	89
6) Indene	4.67	116	46488	5.39	ppm	96
7) Cumene	3.44	105	66227	5.23	ppm	97
9) Phenol	3.99	94	33826	5.13	ppm	98
10) Aniline	3.95	93	40145	5.25	ppm	94
11) bis(2-Chloroethyl)ether	4.02	93	25050	5.31	ppm	98
12) 2-Chlorophenol	4.12	128	26588	5.20	ppm	96
13) Decane	4.16	43	21057	5.31	ppm	98
14) 1,3-Dichlorobenzene	4.28	146	29636	5.08	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	27956	4.98	ppm	97

(#) = qualifier out of range (m) = manual integration

P103014.D MP4524.M Thu Mar 03 09:08:06 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
 Acq On : 2 Mar 2016 6:39 pm Operator: sarad
 Sample : ic4524-5 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.53	108	15363	4.93	ppm	95
17) 1,2-Dichlorobenzene	4.56	146	27909	5.17	ppm	97
18) Acetophenone	4.87	105	36422	5.18	ppm	96
19) 2-Methylphenol	4.73	108	21653	4.99	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.71	121	8174	5.16	ppm #	94
21) 3&4-Methylphenol	4.94	108	23708	5.21	ppm	98
22) n-Nitroso-di-n-propylamine	4.88	70	17413	5.30	ppm	98
23) Hexachloroethane	5.01	201	9201	5.33	ppm	92
26) Nitrobenzene	5.10	77	26808	5.36	ppm	96
27) Quinoline	6.63	129	49913	5.19	ppm	98
28) Isophorone	5.44	82	44969	5.07	ppm	97
29) 2-Nitrophenol	5.55	139	12006	4.74	ppm	85
30) 2,4-Dimethylphenol	5.68	107	21081	4.72	ppm	99
31) Benzoic acid	5.81	105	9949	3.05	ppm	94
32) bis(2-Chloroethoxy)methane	5.78	93	28551	5.26	ppm	98
33) 2,4-Dichlorophenol	5.95	162	19286	5.24	ppm	97
34) 2,6-Dichlorophenol	6.25	162	19007	5.34	ppm	95
35) 1,3,5-Trichlorobenzene	5.57	180	22364	5.16	ppm	98
36) 1,2,4-Trichlorobenzene	6.02	180	22530	5.30	ppm	92
37) 1,2,3-Trichlorobenzene	6.35	180	20382	5.19	ppm	91
38) Naphthalene	6.13	128	71028	5.36	ppm	99
39) 4-Chloroaniline	6.24	127	30237	5.16	ppm	99
40) 2,3-Dichloroaniline	7.64	161	25352	5.55	ppm	98
41) Caprolactam	6.71	55	8639	4.85	ppm	94
42) Hexachlorobutadiene	6.35	225	11099	5.65	ppm	94
43) 4-Chloro-3-methylphenol	7.09	107	20273	4.98	ppm	96
44) 2-Methylnaphthalene	7.19	141	39005	5.29	ppm	97
45) 1-Methylnaphthalene	7.34	142	48329	5.37	ppm	97
46) Dimethylnaphthalene	8.18	156	40886	5.21	ppm	98
48) Hexachlorocyclopentadiene	7.46	237	18369	8.11	ppm	98
49) 2,4,6-Trichlorophenol	7.67	196	11786	4.83	ppm	96
50) 2,4,5-Trichlorophenol	7.78	196	12956	4.98	ppm	94
52) 2-Chloronaphthalene	7.94	162	45135	5.46	ppm	98
53) Biphenyl	7.94	154	56812	5.19	ppm	96
54) 2-Nitroaniline	8.13	65	11086	4.56	ppm	94
55) Dimethylphthalate	8.46	163	49583	5.14	ppm	98
56) Acenaphthylene	8.59	152	69909	5.02	ppm	96
57) 2,6-Dinitrotoluene	8.53	165	9473	4.82	ppm	92
58) 3-Nitroaniline	8.79	138	11577	4.46	ppm	88
59) Acenaphthene	8.87	153	42922	5.11	ppm	95
60) 2,4-Dinitrophenol	8.96	184	4195	9.06	ppm	93
61) 4-Nitrophenol	9.29	109	5034	3.75	ppm	90
62) Dibenzofuran	9.15	168	61714	5.33	ppm	95
63) 2,4-Dinitrotoluene	9.17	165	12512	4.60	ppm	99
64) 2,3,4,6-Tetrachlorophenol	9.39	232	9273	4.86	ppm	94
65) Diethylphthalate	9.60	149	48549	4.98	ppm	99
66) Fluorene	9.69	166	50498	5.43	ppm	96
67) 4-Chlorophenyl-phenylether	9.73	204	22699	5.58	ppm	91
68) 4-Nitroaniline	9.76	138	10988	4.69	ppm	96

(#) = qualifier out of range (m) = manual integration

P103014.D MP4524.M Thu Mar 03 09:08:06 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
 Acq On : 2 Mar 2016 6:39 pm Operator: sarad
 Sample : ic4524-5 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.81	198	4274	7.14	ppm	94
71) n-Nitrosodiphenylamine	9.93	169	35277	5.27	ppm	99
72) 1,2-Diphenylhydrazine	9.98	77	49064	5.19	ppm	95
74) 4-Bromophenyl-phenylether	10.51	248	11636	5.04	ppm	91
75) Hexachlorobenzene	10.58	284	12826	5.27	ppm	95
76) Pentachlorophenol	10.93	266	8538	8.36	ppm	94
77) Phenanthrene	11.22	178	63535	5.01	ppm	100
78) Anthracene	11.30	178	64555	5.02	ppm	99
79) Carbazole	11.61	167	66824	5.35	ppm	98
80) Di-n-butylphthalate	12.30	149	72767	4.72	ppm	98
81) Fluoranthene	13.24	202	66948	5.23	ppm	97
82) Octadecane	11.17	57	24057	5.43	ppm	95
84) Pyrene	13.63	202	72231	4.86	ppm	99
86) Butylbenzylphthalate	15.00	149	30411	4.27	ppm	94
87) Butyl stearate	15.22	56	13848	4.14	ppm	91
88) Benzo[a]anthracene	15.89	228	55988	4.68	ppm	97
89) 3,3'-Dichlorobenzidine	15.91	252	17340	4.21	ppm	91
90) Chrysene	15.94	228	56260	4.75	ppm	98
91) bis(2-Ethylhexyl)phthalate	16.17	149	37454	3.95	ppm	100
93) Di-n-octylphthalate	17.38	149	58128	5.00	ppm	98
94) Benzo[b]fluoranthene	17.83	252	58241	5.31	ppm	99
95) Benzo[k]fluoranthene	17.87	252	58022	5.40	ppm	95
96) Benzo[a]pyrene	18.36	252	50767	5.13	ppm	96
97) Indeno[1,2,3-cd]pyrene	20.08	276	43144	4.85	ppm	95
98) Dibenz(a,h)acridine	19.77	279	38461	4.80	ppm	96
99) Dibenz[a,h]anthracene	20.13	278	46854	5.06	ppm	96
100) 7,12-Dimethylbenz(a)anthra	17.84	256	21729	4.69	ppm	99
101) Benzo[g,h,i]perylene	20.45	276	51032	5.24	ppm	98

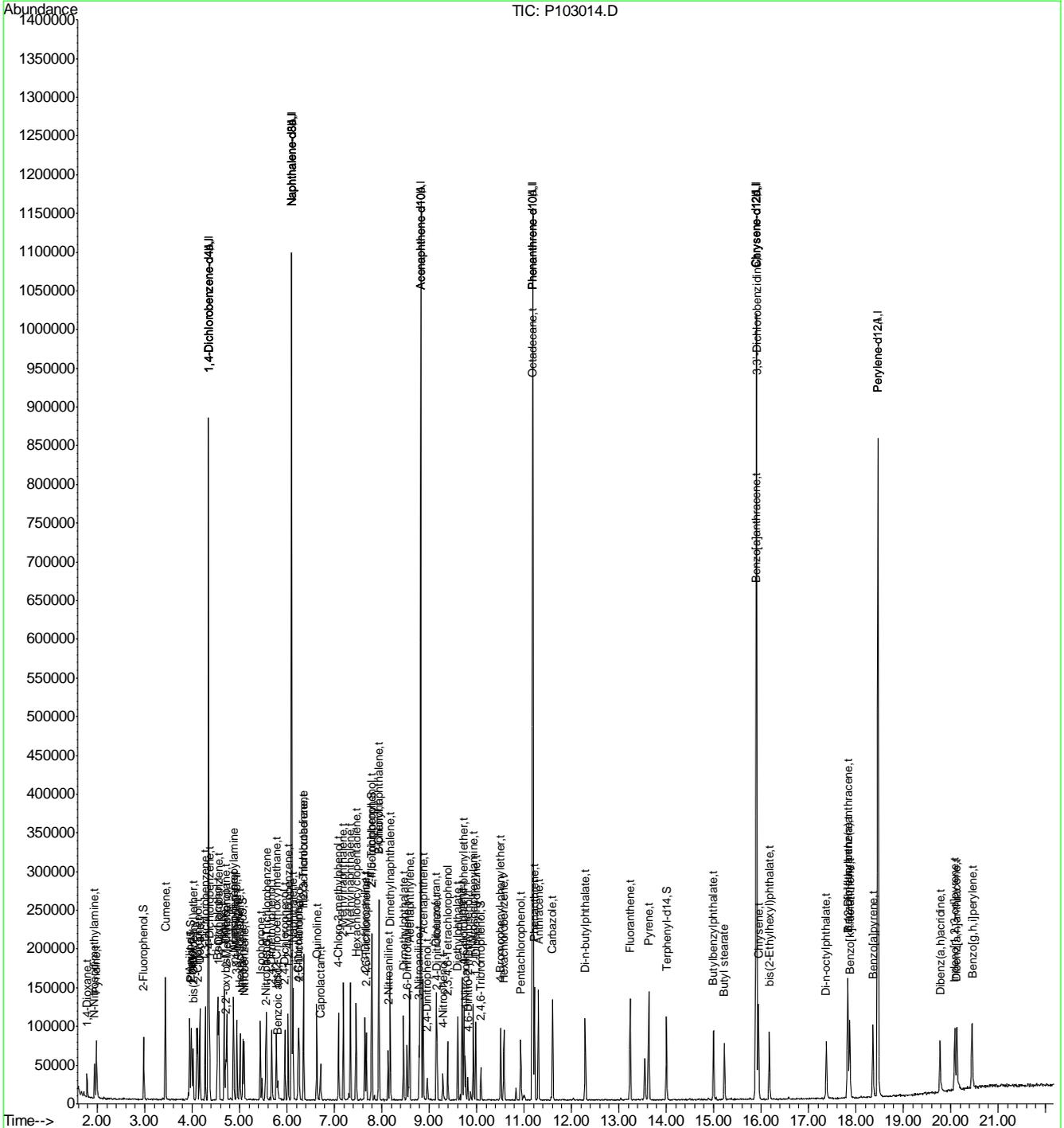
9.6.41
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103014.D MP4524.M Thu Mar 03 09:08:06 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:07 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
 Acq On : 2 Mar 2016 7:08 pm Operator: sarad
 Sample : ic4524-2 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	148071	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	519283	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	303889	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	468881	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	427194	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	384484	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	148071	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	519283	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	303889	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	468881	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	427194	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	384484	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	148071	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	468881	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	427194	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	519283	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	303889	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	519283	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	148071	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	427194	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	427194	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	519283	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	2.98	112	9792	1.90	ppm	0.01
Spiked Amount	50.000		Recovery	=	3.80%	
8) Phenol-d5	3.98	99	13152	2.08	ppm	0.02
Spiked Amount	50.000		Recovery	=	4.16%	
25) Nitrobenzene-d5	5.07	82	10608	2.13	ppm	-0.01
Spiked Amount	50.000		Recovery	=	4.26%	
51) 2-Fluorobiphenyl	7.79	172	19830	2.13	ppm	-0.02
Spiked Amount	50.000		Recovery	=	4.26%	
73) 2,4,6-Tribromophenol	10.09	330	1548	1.53	ppm	-0.02
Spiked Amount	50.000		Recovery	=	3.06%	
85) Terphenyl-d14	14.01	244	15913	1.95	ppm	-0.02
Spiked Amount	50.000		Recovery	=	3.90%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.78	88	5752	2.23	ppm	92
3) Pyridine	1.98	79	11702	2.07	ppm	96
4) N-Nitrosodimethylamine	1.94	42	4545	2.19	ppm	92
6) Indene	4.67	116	17006	2.07	ppm	95
7) Cumene	3.44	105	25241	2.10	ppm	97
9) Phenol	3.99	94	13209	2.10	ppm	97
10) Aniline	3.95	93	15193	2.09	ppm	79
11) bis(2-Chloroethyl)ether	4.02	93	10462	2.33	ppm	96
12) 2-Chlorophenol	4.12	128	10670	2.19	ppm	97
13) Decane	4.16	43	8913	2.36	ppm	89
14) 1,3-Dichlorobenzene	4.28	146	11777	2.12	ppm	89
15) 1,4-Dichlorobenzene	4.37	146	11491	2.15	ppm	89

(#) = qualifier out of range (m) = manual integration

P103015.D MP4524.M Thu Mar 03 09:10:04 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
 Acq On : 2 Mar 2016 7:08 pm Operator: sarad
 Sample : ic4524-2 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.53	108	5754	1.94	ppm	83
17) 1,2-Dichlorobenzene	4.56	146	10342	2.01	ppm	95
18) Acetophenone	4.87	105	13254	1.98	ppm	92
19) 2-Methylphenol	4.73	108	8340	2.02	ppm	96
20) 2,2'-oxybis(1-Chloropropan	4.72	121	3109	2.06	ppm	95
21) 3&4-Methylphenol	4.95	108	8900	2.06	ppm	98
22) n-Nitroso-di-n-propylamine	4.88	70	6765	2.17	ppm	97
23) Hexachloroethane	5.01	201	3499	2.13	ppm	90
26) Nitrobenzene	5.10	77	9920	2.06	ppm	95
27) Quinoline	6.63	129	18405	2.00	ppm	95
28) Isophorone	5.44	82	15954	1.87	ppm	95
29) 2-Nitrophenol	5.55	139	4542	1.87	ppm	91
30) 2,4-Dimethylphenol	5.68	107	7536	1.76	ppm	95
31) Benzoic acid	5.79	105	2676	0.85	ppm	87
32) bis(2-Chloroethoxy)methane	5.78	93	10818	2.08	ppm	92
33) 2,4-Dichlorophenol	5.96	162	6748	1.91	ppm	84
34) 2,6-Dichlorophenol	6.25	162	6535	1.91	ppm	91
35) 1,3,5-Trichlorobenzene	5.57	180	8324	2.00	ppm	95
36) 1,2,4-Trichlorobenzene	6.02	180	8294	2.03	ppm	89
37) 1,2,3-Trichlorobenzene	6.36	180	8219	2.18	ppm	95
38) Naphthalene	6.13	128	27359	2.15	ppm	96
39) 4-Chloroaniline	6.24	127	10739	1.91	ppm	94
40) 2,3-Dichloroaniline	7.64	161	9506	2.17	ppm	97
41) Caprolactam	6.70	55	2827	1.65	ppm	78
42) Hexachlorobutadiene	6.35	225	4199	2.22	ppm	95
43) 4-Chloro-3-methylphenol	7.09	107	6722	1.72	ppm	95
44) 2-Methylnaphthalene	7.19	141	14472	2.04	ppm	92
45) 1-Methylnaphthalene	7.34	142	17995	2.08	ppm	94
46) Dimethylnaphthalene	8.18	156	15216	2.02	ppm	92
48) Hexachlorocyclopentadiene	7.46	237	6584	3.05	ppm	96
49) 2,4,6-Trichlorophenol	7.67	196	4312	1.85	ppm	99
50) 2,4,5-Trichlorophenol	7.79	196	4313	1.74	ppm	95
52) 2-Chloronaphthalene	7.94	162	17541	2.23	ppm	94
53) Biphenyl	7.94	154	22996	2.20	ppm	97
54) 2-Nitroaniline	8.13	65	3978	1.72	ppm	83
55) Dimethylphthalate	8.46	163	18317	1.99	ppm	99
56) Acenaphthylene	8.59	152	25872	1.95	ppm	94
57) 2,6-Dinitrotoluene	8.53	165	3010	1.60	ppm	93
58) 3-Nitroaniline	8.79	138	3802	1.53	ppm	98
59) Acenaphthene	8.87	153	15999	2.00	ppm	93
60) 2,4-Dinitrophenol	8.96	184	785	6.33	ppm	82
61) 4-Nitrophenol	9.29	109	1841	1.44	ppm #	83
62) Dibenzofuran	9.15	168	23300	2.11	ppm	98
63) 2,4-Dinitrotoluene	9.17	165	3967	1.95	ppm	92
64) 2,3,4,6-Tetrachlorophenol	9.39	232	2826	1.55	ppm	80
65) Diethylphthalate	9.60	149	18236	1.96	ppm	95
66) Fluorene	9.69	166	18432	2.08	ppm	93
67) 4-Chlorophenyl-phenylether	9.73	204	8412	2.17	ppm	98
68) 4-Nitroaniline	9.76	138	3584	1.61	ppm	94

(#) = qualifier out of range (m) = manual integration

P103015.D MP4524.M Thu Mar 03 09:10:04 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
 Acq On : 2 Mar 2016 7:08 pm Operator: sarad
 Sample : ic4524-2 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.81	198	1004	5.44	ppm	92
71) n-Nitrosodiphenylamine	9.93	169	12791	2.02	ppm	95
72) 1,2-Diphenylhydrazine	9.98	77	17812	1.99	ppm	91
74) 4-Bromophenyl-phenylether	10.51	248	4180	1.91	ppm	92
75) Hexachlorobenzene	10.58	284	5013	2.18	ppm	90
76) Pentachlorophenol	10.93	266	2234	5.26	ppm	89
77) Phenanthrene	11.22	178	24318	2.03	ppm	98
78) Anthracene	11.30	178	23432	1.93	ppm	99
79) Carbazole	11.60	167	23377	1.98	ppm	99
80) Di-n-butylphthalate	12.29	149	23363	1.60	ppm	93
81) Fluoranthene	13.24	202	23983	1.98	ppm	97
82) Octadecane	11.17	57	8767	2.09	ppm	97
84) Pyrene	13.63	202	26127	1.86	ppm	93
86) Butylbenzylphthalate	14.99	149	8941	1.33	ppm	90
87) Butyl stearate	15.22	56	3624	1.15	ppm	87
88) Benzo[a]anthracene	15.89	228	20705	1.84	ppm	99
89) 3,3'-Dichlorobenzidine	15.91	252	5154	1.33	ppm	87
90) Chrysene	15.94	228	22166	1.98	ppm	98
91) bis(2-Ethylhexyl)phthalate	16.17	149	10184	1.14	ppm	92
93) Di-n-octylphthalate	17.38	149	13602	2.95	ppm	97
94) Benzo[b]fluoranthene	17.83	252	20465	1.97	ppm	94
95) Benzo[k]fluoranthene	17.87	252	20495	2.02	ppm	91
96) Benzo[a]pyrene	18.36	252	16901	1.81	ppm	99
97) Indeno[1,2,3-cd]pyrene	20.08	276	13908m	1.65	ppm	
98) Dibenz(a,h)acridine	19.78	279	11517	1.52	ppm	97
99) Dibenz[a,h]anthracene	20.13	278	16778	1.92	ppm	92
100) 7,12-Dimethylbenz(a)anthra	17.83	256	7263	1.66	ppm	87
101) Benzo[g,h,i]perylene	20.45	276	17502	1.90	ppm	98

9.6.42
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103015.D MP4524.M Thu Mar 03 09:10:04 2016

Manual Integration Approval Summary

Sample Number: EP4524-IC4524 Method: SW846 8270D
Lab FileID: P103015.D Analyst approved: 03/03/16 11:25 Linsey Kirschmann
Injection Time: 03/02/16 19:08 Supervisor approved: 03/03/16 15:11 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		20.08	Poor instrument integration

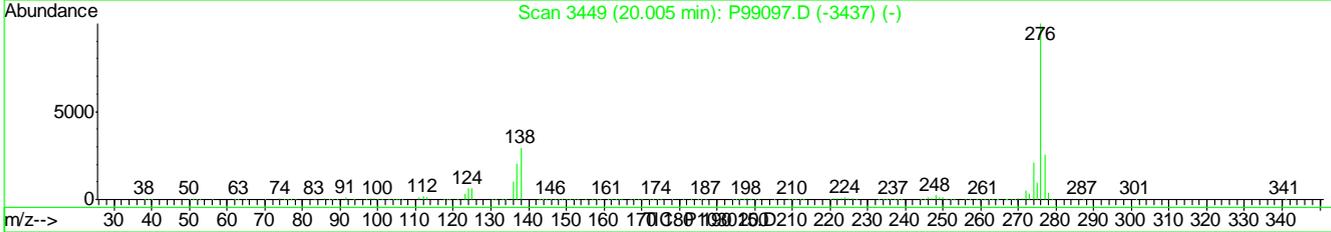
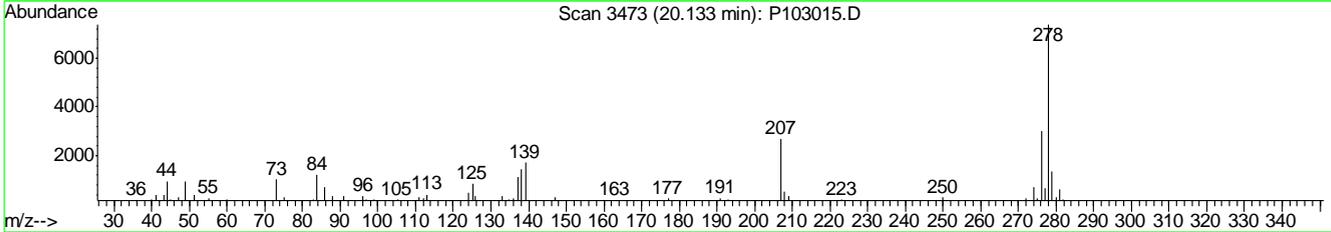
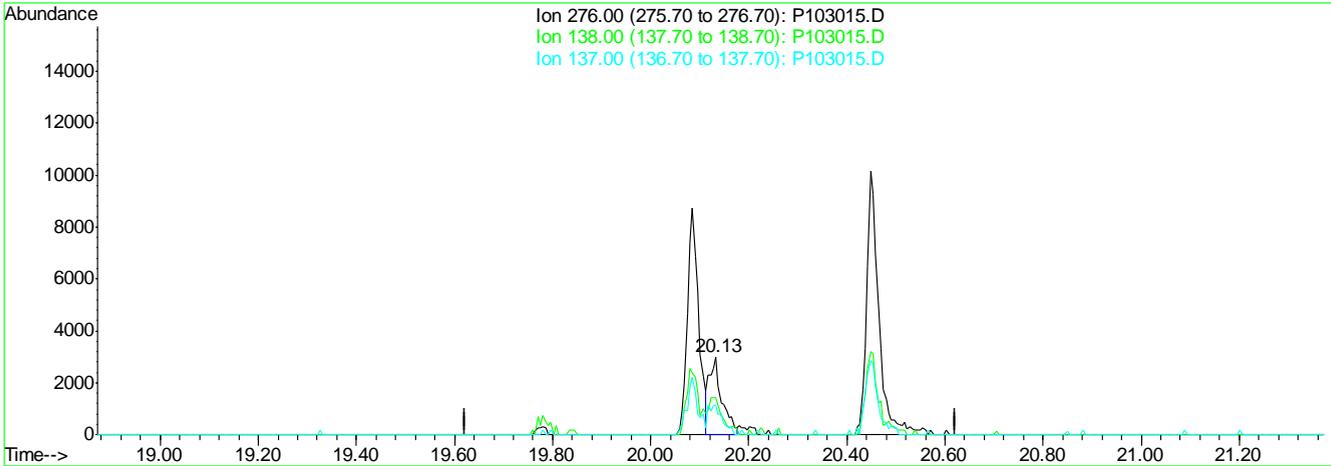
9.6.42.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
 Acq On : 2 Mar 2016 7:08 pm Operator: sarad
 Sample : ic4524-2 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 9:08 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Multiple Level Calibration



(97) Indeno[1,2,3-cd]pyrene (t)

20.13min 0.65ppm

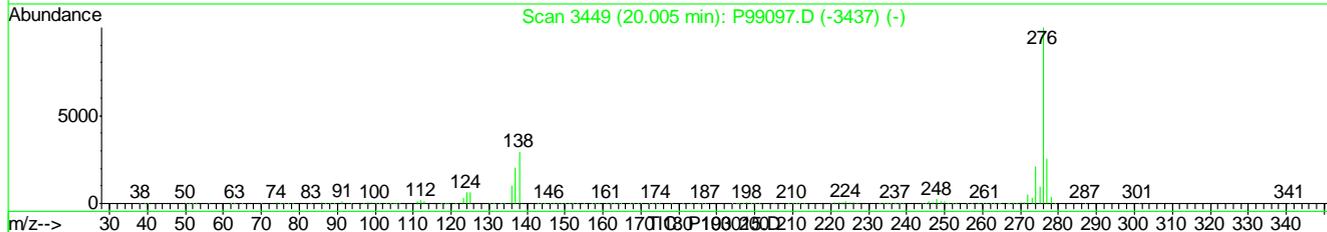
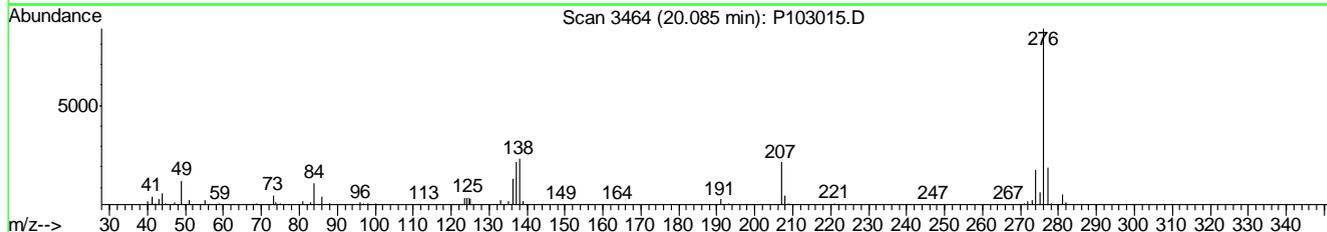
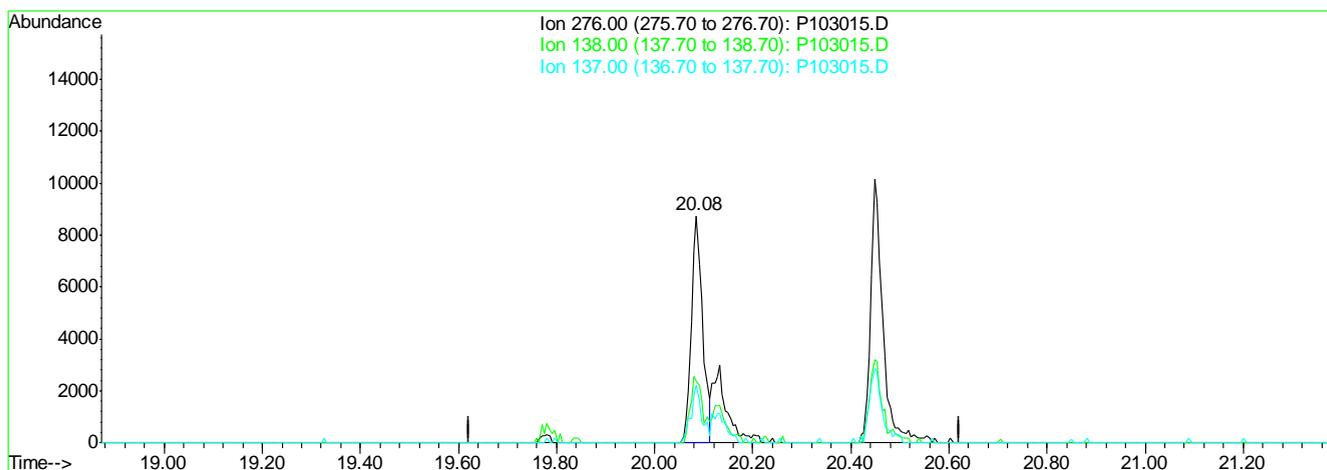
response 5497

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	45.22
137.00	20.50	50.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
 Acq On : 2 Mar 2016 7:08 pm Operator: sarad
 Sample : ic4524-2 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 9:09 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Multiple Level Calibration



(97) Indeno[1,2,3-cd]pyrene (t)

20.08min 1.65ppm m

response 13908

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	27.33
137.00	20.50	25.37
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
 Acq On : 2 Mar 2016 7:37 pm Operator: sarad
 Sample : ic4524-1 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155171	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	555275	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	323538	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	495080	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	448414	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	398461	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155171	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	555275	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	323538	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	495080	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	448414	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	398461	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155171	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	495080	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	448414	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	555275	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	323538	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	555275	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155171	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	448414	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	448414	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	555275	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	2.97	112	4980	0.92	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.84%	
8) Phenol-d5	3.98	99	6538	0.99	ppm	0.02
Spiked Amount	50.000		Recovery	=	1.98%	
25) Nitrobenzene-d5	5.07	82	5331	1.00	ppm	-0.01
Spiked Amount	50.000		Recovery	=	2.00%	
51) 2-Fluorobiphenyl	7.79	172	10228	1.03	ppm	-0.02
Spiked Amount	50.000		Recovery	=	2.06%	
73) 2,4,6-Tribromophenol	10.09	330	673	0.63	ppm	-0.02
Spiked Amount	50.000		Recovery	=	1.26%	
85) Terphenyl-d14	14.01	244	8345	0.97	ppm	-0.02
Spiked Amount	50.000		Recovery	=	1.94%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.78	88	3235	1.20	ppm	91
3) Pyridine	1.99	79	6499	1.10	ppm	98
4) N-Nitrosodimethylamine	1.94	42	2444	1.12	ppm	90
6) Indene	4.67	116	8844	1.03	ppm	91
7) Cumene	3.44	105	14638	1.16	ppm	92
9) Phenol	3.99	94	6552	1.00	ppm	93
10) Aniline	3.95	93	8065	1.06	ppm	87
11) bis(2-Chloroethyl)ether	4.02	93	5482	1.17	ppm	98
12) 2-Chlorophenol	4.12	128	4814	0.94	ppm	97
13) Decane	4.16	43	4471	1.13	ppm	89
14) 1,3-Dichlorobenzene	4.28	146	6006	1.03	ppm	99
15) 1,4-Dichlorobenzene	4.36	146	5565	0.99	ppm	82

(#) = qualifier out of range (m) = manual integration

P103016.D MP4524.M Thu Mar 03 09:14:57 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
 Acq On : 2 Mar 2016 7:37 pm Operator: sarad
 Sample : ic4524-1 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.53	108	2890	0.93	ppm	97
17) 1,2-Dichlorobenzene	4.56	146	5817	1.08	ppm	95
18) Acetophenone	4.87	105	7136	1.02	ppm	95
19) 2-Methylphenol	4.73	108	4147	0.96	ppm	91
20) 2,2'-oxybis(1-Chloropropan	4.72	121	1794	1.14	ppm	98
21) 3&4-Methylphenol	4.94	108	4450	0.98	ppm	86
22) n-Nitroso-di-n-propylamine	4.88	70	3507	1.07	ppm	89
23) Hexachloroethane	5.00	201	1742	1.01	ppm	90
26) Nitrobenzene	5.09	77	5747	1.12	ppm	89
27) Quinoline	6.63	129	9837	1.00	ppm	90
28) Isophorone	5.44	82	8238	0.91	ppm	95
29) 2-Nitrophenol	5.55	139	2172	0.84	ppm	84
30) 2,4-Dimethylphenol	5.68	107	3754	0.82	ppm	90
31) Benzoic acid	5.79	105	835	0.25	ppm	95
32) bis(2-Chloroethoxy)methane	5.78	93	5666	1.02	ppm	95
33) 2,4-Dichlorophenol	5.96	162	3337	0.88	ppm	97
34) 2,6-Dichlorophenol	6.25	162	3575	0.98	ppm	94
35) 1,3,5-Trichlorobenzene	5.57	180	4850	1.09	ppm	85
36) 1,2,4-Trichlorobenzene	6.02	180	4557	1.04	ppm	86
37) 1,2,3-Trichlorobenzene	6.35	180	4197	1.04	ppm	93
38) Naphthalene	6.13	128	14418	1.06	ppm	98
39) 4-Chloroaniline	6.24	127	5443	0.90	ppm	97
40) 2,3-Dichloroaniline	7.64	161	4523	0.96	ppm	91
41) Caprolactam	6.70	55	1510	0.83	ppm #	76
42) Hexachlorobutadiene	6.35	225	2229	1.10	ppm	90
43) 4-Chloro-3-methylphenol	7.09	107	3059	0.73	ppm #	67
44) 2-Methylnaphthalene	7.19	141	7623	1.01	ppm	98
45) 1-Methylnaphthalene	7.34	142	9057	0.98	ppm	93
46) Dimethylnaphthalene	8.18	156	8233	1.02	ppm	96
48) Hexachlorocyclopentadiene	7.46	237	2913	1.27	ppm	88
49) 2,4,6-Trichlorophenol	7.68	196	2008	0.81	ppm	98
50) 2,4,5-Trichlorophenol	7.79	196	1993	0.76	ppm	97
52) 2-Chloronaphthalene	7.94	162	8595	1.02	ppm	90
53) Biphenyl	7.94	154	11633	1.05	ppm	95
54) 2-Nitroaniline	8.13	65	1760	0.71	ppm	95
55) Dimethylphthalate	8.46	163	9365	0.96	ppm	96
56) Acenaphthylene	8.59	152	13949	0.99	ppm	95
57) 2,6-Dinitrotoluene	8.53	165	1603	0.80	ppm	93
58) 3-Nitroaniline	8.79	138	1709	0.65	ppm	73
59) Acenaphthene	8.87	153	8759	1.03	ppm	92
60) 2,4-Dinitrophenol	8.96	184	259	5.87	ppm #	22
61) 4-Nitrophenol	9.30	109	572	0.42	ppm #	56
62) Dibenzofuran	9.15	168	11667	0.99	ppm	98
63) 2,4-Dinitrotoluene	9.17	165	1578	1.12	ppm	88
64) 2,3,4,6-Tetrachlorophenol	9.39	232	1177	0.61	ppm	89
65) Diethylphthalate	9.60	149	8984	0.91	ppm	98
66) Fluorene	9.69	166	9121	0.97	ppm	89
67) 4-Chlorophenyl-phenylether	9.73	204	4077	0.99	ppm	96
68) 4-Nitroaniline	9.76	138	1447	0.61	ppm	92

(#) = qualifier out of range (m) = manual integration

P103016.D MP4524.M Thu Mar 03 09:14:57 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
 Acq On : 2 Mar 2016 7:37 pm Operator: sarad
 Sample : ic4524-1 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.81	198	406	5.09	ppm #	29
71) n-Nitrosodiphenylamine	9.93	169	6294	0.94	ppm	96
72) 1,2-Diphenylhydrazine	9.98	77	8640	0.91	ppm	90
74) 4-Bromophenyl-phenylether	10.51	248	2225	0.96	ppm	96
75) Hexachlorobenzene	10.58	284	2726	1.12	ppm	95
76) Pentachlorophenol	10.93	266	748	4.45	ppm	78
77) Phenanthrene	11.22	178	12359	0.98	ppm	98
78) Anthracene	11.30	178	11081	0.86	ppm	93
79) Carbazole	11.60	167	11258	0.90	ppm	93
80) Di-n-butylphthalate	12.29	149	11428	0.74	ppm	98
81) Fluoranthene	13.24	202	12351	0.97	ppm	94
82) Octadecane	11.17	57	4325	0.98	ppm	95
84) Pyrene	13.63	202	13036	0.89	ppm	96
86) Butylbenzylphthalate	15.00	149	3399	0.48	ppm	87
87) Butyl stearate	15.22	56	1463	0.44	ppm	73
88) Benzo[a]anthracene	15.89	228	10942	0.92	ppm	97
89) 3,3'-Dichlorobenzidine	15.91	252	2232	0.55	ppm	86
90) Chrysene	15.94	228	10699	0.91	ppm	93
91) bis(2-Ethylhexyl)phthalate	16.17	149	3603	0.38	ppm	96
93) Di-n-octylphthalate	17.38	149	5368	2.53	ppm	95
94) Benzo[b]fluoranthene	17.83	252	9472	0.88	ppm	98
95) Benzo[k]fluoranthene	17.87	252	10371	0.98	ppm	91
96) Benzo[a]pyrene	18.36	252	7839	0.81	ppm	97
97) Indeno[1,2,3-cd]pyrene	20.09	276	6348m	0.73	ppm	
98) Dibenz(a,h)acridine	19.78	279	5613	0.72	ppm	86
99) Dibenz[a,h]anthracene	20.13	278	7251	0.80	ppm	92
100) 7,12-Dimethylbenz(a)anthra	17.84	256	2773	0.61	ppm	87
101) Benzo[g,h,i]perylene	20.45	276	8994	0.94	ppm	87

9.6.43
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103016.D MP4524.M Thu Mar 03 09:14:57 2016

Manual Integration Approval Summary

Sample Number: EP4524-IC4524 Method: SW846 8270D
Lab FileID: P103016.D Analyst approved: 03/03/16 11:25 Linsey Kirschmann
Injection Time: 03/02/16 19:37 Supervisor approved: 03/03/16 15:11 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		20.09	Poor instrument integration

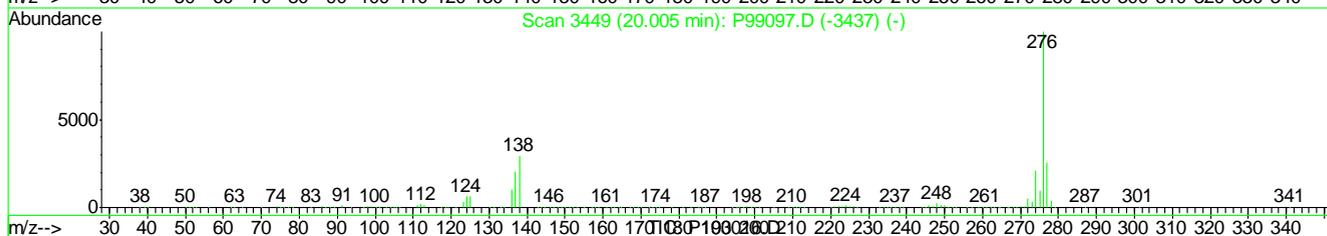
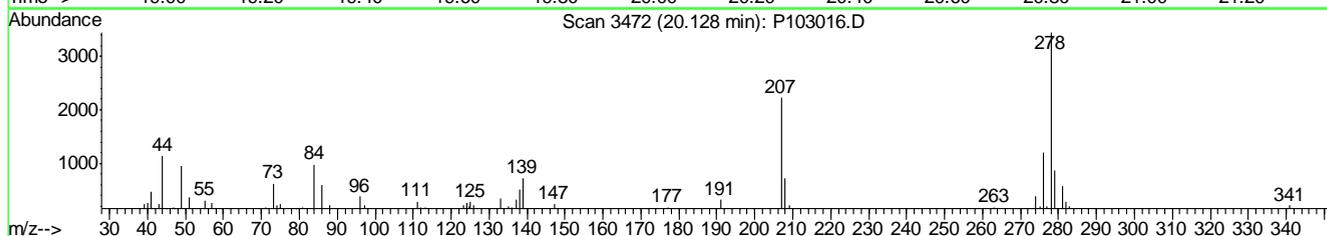
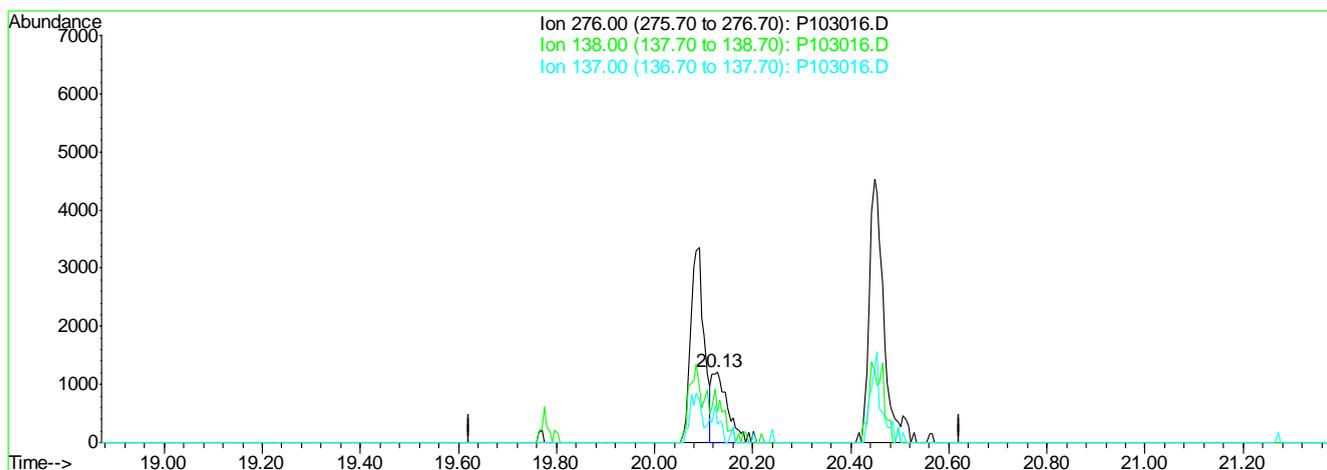
9.6.43.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
 Acq On : 2 Mar 2016 7:37 pm Operator: sarad
 Sample : ic4524-1 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 8:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Multiple Level Calibration



(97) Indeno[1,2,3-cd]pyrene (t)

20.13min 0.32ppm

response 2751

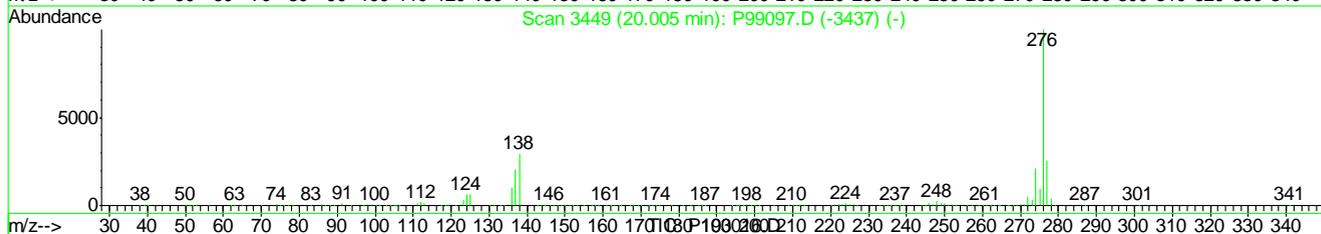
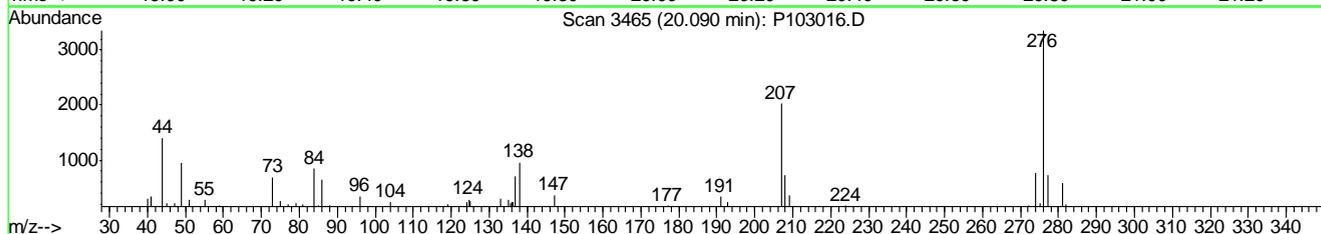
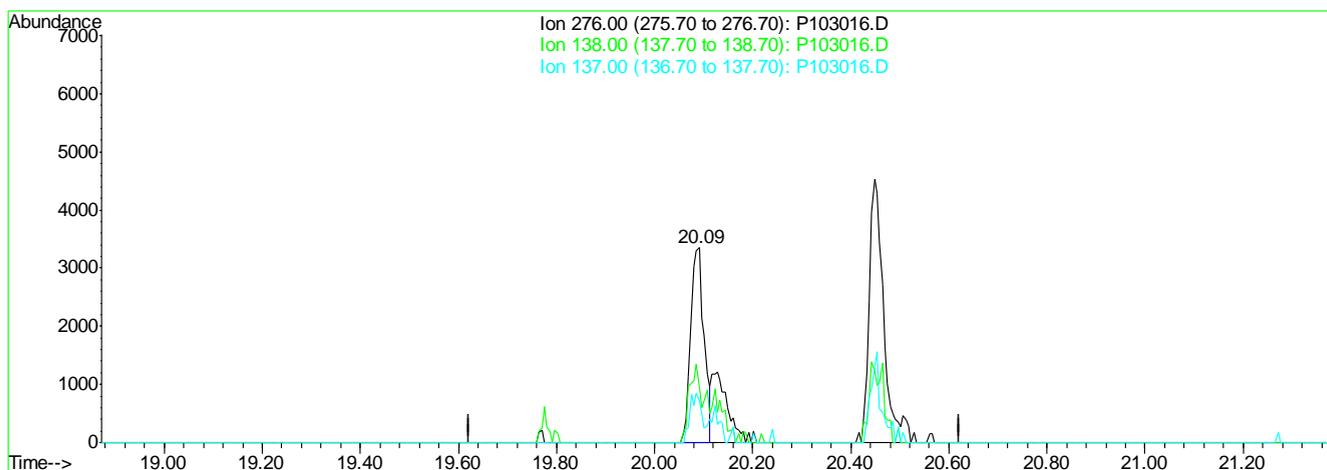
Ion	Exp%	Act%
276.00	100	100
138.00	28.90	24.11
137.00	20.50	15.27
0.00	0.00	0.00

9.6.43.2
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
 Acq On : 2 Mar 2016 7:37 pm Operator: sarad
 Sample : ic4524-1 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 9:14 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Multiple Level Calibration



(97) Indeno[1,2,3-cd]pyrene (t)

20.09min 0.73ppm m

response 6348

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	28.36
137.00	20.50	21.29
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
 Acq On : 2 Mar 2016 8:06 pm Operator: sarad
 Sample : icc4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	124231	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	437439	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	253741	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	378134	40.00	ppm	-0.01
83) Chrysene-d12	15.91	240	350683	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	328054	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	124231	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	437439	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	253741	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	378134	40.00	ppm	-0.04
147) Chrysene-d12A	15.91	240	350683	40.00	ppm	-0.04
155) Perylene-d12A	18.47	264	328054	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	124231	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	378134	40.00	ppm	-0.04
163) Chrysene-d12b	15.91	240	350683	40.00	ppm	-0.04
165) Naphthalene-d8b	6.10	136	437439	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	253741	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	437439	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	124231	40.00	ppm	-0.11
176) Chrysene-d12c	15.91	240	350683	40.00	ppm	-0.05
178) Chrysene-d12d	15.91	240	350683	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	437439	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	2.97	112	244782	56.72	ppm	0.00
Spiked Amount	50.000		Recovery	=	113.44%	
8) Phenol-d5	3.96	99	291076	54.97	ppm	0.00
Spiked Amount	50.000		Recovery	=	109.94%	
25) Nitrobenzene-d5	5.07	82	243526	58.08	ppm	-0.01
Spiked Amount	50.000		Recovery	=	116.16%	
51) 2-Fluorobiphenyl	7.79	172	409109	52.68	ppm	-0.01
Spiked Amount	50.000		Recovery	=	105.36%	
73) 2,4,6-Tribromophenol	10.09	330	54000	66.07	ppm	-0.01
Spiked Amount	50.000		Recovery	=	132.14%	
85) Terphenyl-d14	14.01	244	395789	59.01	ppm	-0.01
Spiked Amount	50.000		Recovery	=	118.02%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.78	88	117581	54.38	ppm	95
3) Pyridine	1.97	79	268554	56.73	ppm	95
4) N-Nitrosodimethylamine	1.94	42	101045	57.99	ppm	98
6) Indene	4.68	116	387000	56.16	ppm	98
7) Cumene	3.44	105	542916	53.73	ppm	99
9) Phenol	3.98	94	292195	55.48	ppm	91
10) Aniline	3.95	93	305737	50.09	ppm	93
11) bis(2-Chloroethyl)ether	4.02	93	208557	55.36	ppm	97
12) 2-Chlorophenol	4.11	128	223091	54.63	ppm	97
13) Decane	4.16	43	168665	53.28	ppm	99
14) 1,3-Dichlorobenzene	4.28	146	244389	52.47	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	237485	52.96	ppm	100

(#) = qualifier out of range (m) = manual integration

P103017.D MP4524.M Thu Mar 03 09:16:27 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
 Acq On : 2 Mar 2016 8:06 pm Operator: sarad
 Sample : icc4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.53	108	141064	56.70	ppm	99
17) 1,2-Dichlorobenzene	4.56	146	222053	51.52	ppm	99
18) Acetophenone	4.87	105	303490	54.08	ppm	97
19) 2-Methylphenol	4.73	108	193523	55.92	ppm	98
20) 2,2'-oxybis(1-Chloropropan	4.71	121	70318	55.64	ppm #	84
21) 3&4-Methylphenol	4.94	108	215516	59.37	ppm	99
22) n-Nitroso-di-n-propylamine	4.89	70	153156	58.43	ppm	97
23) Hexachloroethane	5.01	201	77555	56.23	ppm	94
26) Nitrobenzene	5.10	77	225838	55.78	ppm	98
27) Quinoline	6.64	129	437092	56.25	ppm	99
28) Isophorone	5.44	82	413211	57.62	ppm	99
29) 2-Nitrophenol	5.55	139	123178	60.15	ppm	92
30) 2,4-Dimethylphenol	5.68	107	209702	58.08	ppm	98
31) Benzoic acid	5.88	105	155312	58.82	ppm	96
32) bis(2-Chloroethoxy)methane	5.78	93	252768	57.57	ppm	98
33) 2,4-Dichlorophenol	5.95	162	177728	59.71	ppm	99
34) 2,6-Dichlorophenol	6.26	162	165495	57.54	ppm	97
35) 1,3,5-Trichlorobenzene	5.57	180	185172	52.87	ppm	99
36) 1,2,4-Trichlorobenzene	6.02	180	181262	52.73	ppm	95
37) 1,2,3-Trichlorobenzene	6.36	180	164492	51.83	ppm	99
38) Naphthalene	6.13	128	585134	54.55	ppm	99
39) 4-Chloroaniline	6.24	127	257943	54.40	ppm	98
40) 2,3-Dichloroaniline	7.64	161	220036	59.56	ppm	98
41) Caprolactam	6.75	55	86330	59.96	ppm	97
42) Hexachlorobutadiene	6.35	225	90265	56.78	ppm	99
43) 4-Chloro-3-methylphenol	7.08	107	201867	61.35	ppm	95
44) 2-Methylnaphthalene	7.19	141	326822	54.80	ppm	98
45) 1-Methylnaphthalene	7.34	142	397618	54.61	ppm	99
46) Dimethylnaphthalene	8.18	156	352622	55.60	ppm	100
48) Hexachlorocyclopentadiene	7.46	237	206540	114.53	ppm	100
49) 2,4,6-Trichlorophenol	7.67	196	116436	59.91	ppm	100
50) 2,4,5-Trichlorophenol	7.78	196	125359	60.57	ppm	99
52) 2-Chloronaphthalene	7.95	162	352021	53.48	ppm	99
53) Biphenyl	7.94	154	450733	51.74	ppm	100
54) 2-Nitroaniline	8.14	65	117767	60.81	ppm	91
55) Dimethylphthalate	8.47	163	428351	55.76	ppm	98
56) Acenaphthylene	8.59	152	586858	52.98	ppm	100
57) 2,6-Dinitrotoluene	8.54	165	101635	64.90	ppm	94
58) 3-Nitroaniline	8.80	138	120352	58.19	ppm	95
59) Acenaphthene	8.87	153	363738	54.35	ppm	97
60) 2,4-Dinitrophenol	8.96	184	102911	107.60	ppm	98
61) 4-Nitrophenol	9.26	109	64581	60.49	ppm	97
62) Dibenzofuran	9.15	168	510264	55.37	ppm	98
63) 2,4-Dinitrotoluene	9.17	165	131015	57.04	ppm	98
64) 2,3,4,6-Tetrachlorophenol	9.39	232	95041	62.54	ppm	97
65) Diethylphthalate	9.61	149	434775	56.04	ppm	99
66) Fluorene	9.70	166	423992	57.28	ppm	100
67) 4-Chlorophenyl-phenylether	9.74	204	185974	57.40	ppm	97
68) 4-Nitroaniline	9.78	138	115638	62.06	ppm	100

(#) = qualifier out of range (m) = manual integration

P103017.D MP4524.M Thu Mar 03 09:16:27 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
 Acq On : 2 Mar 2016 8:06 pm Operator: sarad
 Sample : icc4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 09:08:31 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.82	198	74923	56.72	ppm	96
71) n-Nitrosodiphenylamine	9.93	169	316794	61.94	ppm	99
72) 1,2-Diphenylhydrazine	9.98	77	426774	59.08	ppm	95
74) 4-Bromophenyl-phenylether	10.51	248	107403	60.89	ppm	99
75) Hexachlorobenzene	10.58	284	109393	58.88	ppm	94
76) Pentachlorophenol	10.93	266	131524	98.75	ppm	97
77) Phenanthrene	11.23	178	542665	56.07	ppm	99
78) Anthracene	11.31	178	562547	57.33	ppm	99
79) Carbazole	11.61	167	581354	60.92	ppm	99
80) Di-n-butylphthalate	12.30	149	728458	61.91	ppm	100
81) Fluoranthene	13.25	202	609214	62.34	ppm	98
82) Octadecane	11.17	57	230371	68.10	ppm	97
84) Pyrene	13.64	202	625809	54.36	ppm	97
86) Butylbenzylphthalate	15.00	149	332955	60.35	ppm	98
87) Butyl stearate	15.23	56	163184	62.97	ppm	94
88) Benzo[a]anthracene	15.89	228	528127	57.08	ppm	100
89) 3,3'-Dichlorobenzidine	15.92	252	197984	62.07	ppm	98
90) Chrysene	15.96	228	504341	55.00	ppm	99
91) bis(2-Ethylhexyl)phthalate	16.17	149	438733	59.75	ppm	98
93) Di-n-octylphthalate	17.38	149	753065	55.08	ppm	98
94) Benzo[b]fluoranthene	17.84	252	554377	62.60	ppm	99
95) Benzo[k]fluoranthene	17.89	252	512346	59.04	ppm	100
96) Benzo[a]pyrene	18.37	252	498096	62.42	ppm	99
97) Indeno[1,2,3-cd]pyrene	20.10	276	455306	63.43	ppm	98
98) Dibenz(a,h)acridine	19.79	279	433348	67.08	ppm	98
99) Dibenz[a,h]anthracene	20.14	278	481767	64.53	ppm	99
100) 7,12-Dimethylbenz(a)anthra	17.85	256	243106	64.97	ppm	99
101) Benzo[g,h,i]perylene	20.47	276	499527	63.61	ppm	98

9.6.44
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103017.D MP4524.M Thu Mar 03 09:16:28 2016

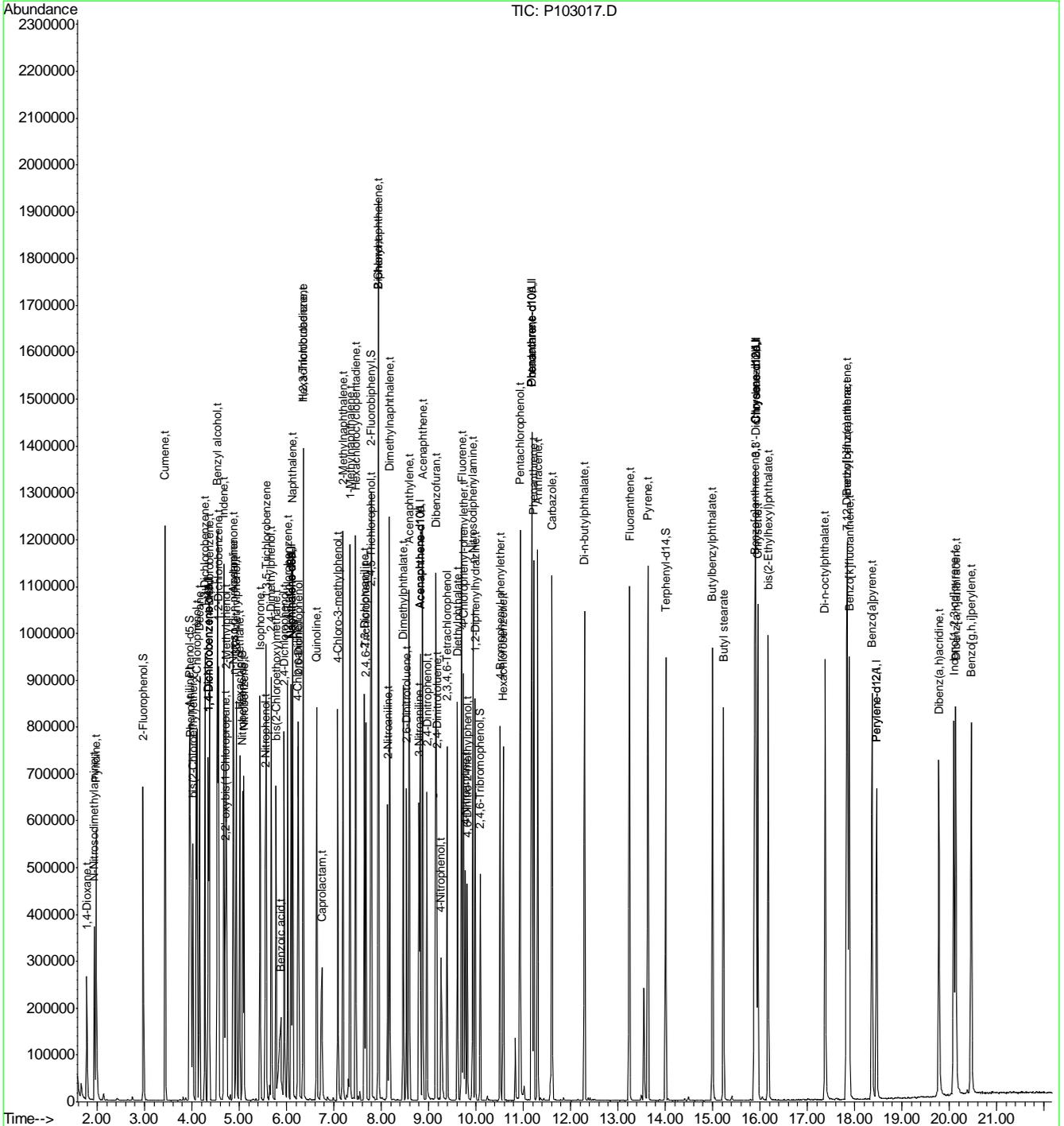
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D
Acq On : 2 Mar 2016 8:06 pm
Sample : icc4524-50
Misc : op91633,ep4524
MS Integration Params: rteint.p
Quant Time: Mar 3 9:16 2016

Vial: 8
Operator: sarad
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



9.6.44
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
 Acq On : 2 Mar 2016 8:36 pm Operator: sarad
 Sample : ic4524-25 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	124470	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	442285	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	259301	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	393353	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	355354	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	330253	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	124470	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	442285	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	259301	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	393353	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	355354	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	330253	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	124470	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	393353	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	355354	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	442285	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	259301	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	442285	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	124470	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	355354	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	355354	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	442285	40.00	ppm	0.13
System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	120675	27.91	ppm	0.00
Spiked Amount	50.000		Recovery	=	55.82%	
8) Phenol-d5	3.97	99	145695	27.46	ppm	0.00
Spiked Amount	50.000		Recovery	=	54.92%	
25) Nitrobenzene-d5	5.07	82	121082	28.56	ppm	-0.01
Spiked Amount	50.000		Recovery	=	57.12%	
51) 2-Fluorobiphenyl	7.79	172	209611	26.41	ppm	-0.01
Spiked Amount	50.000		Recovery	=	52.82%	
73) 2,4,6-Tribromophenol	10.09	330	25324	29.79	ppm	-0.02
Spiked Amount	50.000		Recovery	=	59.58%	
85) Terphenyl-d14	14.01	244	192291	28.30	ppm	-0.02
Spiked Amount	50.000		Recovery	=	56.60%	
Target Compounds						
2) 1,4-Dioxane	1.78	88	56098	25.90	ppm	96
3) Pyridine	1.97	79	136188	28.71	ppm	97
4) N-Nitrosodimethylamine	1.94	42	49690	28.46	ppm	99
6) Indene	4.67	116	194064	28.11	ppm	98
7) Cumene	3.43	105	283811	28.04	ppm	98
9) Phenol	3.98	94	147604	27.97	ppm	97
10) Aniline	3.95	93	167753	27.43	ppm	82
11) bis(2-Chloroethyl)ether	4.02	93	103434	27.40	ppm	99
12) 2-Chlorophenol	4.11	128	111889	27.35	ppm	96
13) Decane	4.16	43	87928	27.72	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	124339	26.64	ppm	97
15) 1,4-Dichlorobenzene	4.37	146	121849	27.12	ppm	98

(#) = qualifier out of range (m) = manual integration

P103018.D MP4524.M Thu Mar 03 09:17:56 2016

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
 Acq On : 2 Mar 2016 8:36 pm Operator: sarad
 Sample : ic4524-25 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.53	108	69022	27.69	ppm	96
17) 1,2-Dichlorobenzene	4.56	146	113594	26.30	ppm	100
18) Acetophenone	4.87	105	153764	27.35	ppm	99
19) 2-Methylphenol	4.73	108	97495	28.12	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.71	121	35279	27.86	ppm #	88
21) 3&4-Methylphenol	4.94	108	106602	29.31	ppm	98
22) n-Nitroso-di-n-propylamine	4.88	70	77193	29.39	ppm	97
23) Hexachloroethane	5.01	201	39144	28.32	ppm	92
26) Nitrobenzene	5.10	77	114670	28.01	ppm	98
27) Quinoline	6.63	129	217173	27.64	ppm	98
28) Isophorone	5.44	82	205558	28.35	ppm	97
29) 2-Nitrophenol	5.55	139	60673	29.31	ppm	91
30) 2,4-Dimethylphenol	5.68	107	99929	27.38	ppm	99
31) Benzoic acid	5.84	105	66251	24.82	ppm	97
32) bis(2-Chloroethoxy)methane	5.78	93	126470	28.49	ppm	98
33) 2,4-Dichlorophenol	5.95	162	89796	29.84	ppm	97
34) 2,6-Dichlorophenol	6.25	162	83622	28.76	ppm	99
35) 1,3,5-Trichlorobenzene	5.57	180	94745	26.75	ppm	99
36) 1,2,4-Trichlorobenzene	6.02	180	91759	26.40	ppm	98
37) 1,2,3-Trichlorobenzene	6.36	180	83571	26.04	ppm	98
38) Naphthalene	6.13	128	301381	27.79	ppm	98
39) 4-Chloroaniline	6.24	127	131232	27.37	ppm	98
40) 2,3-Dichloroaniline	7.64	161	108904	29.16	ppm	99
41) Caprolactam	6.72	55	41224	28.32	ppm	98
42) Hexachlorobutadiene	6.35	225	46039	28.64	ppm	97
43) 4-Chloro-3-methylphenol	7.08	107	97636	29.35	ppm	98
44) 2-Methylnaphthalene	7.19	141	166891	27.68	ppm	97
45) 1-Methylnaphthalene	7.34	142	203584	27.65	ppm	99
46) Dimethylnaphthalene	8.18	156	179244	27.95	ppm	99
48) Hexachlorocyclopentadiene	7.46	237	98948	53.69	ppm	99
49) 2,4,6-Trichlorophenol	7.67	196	57772	29.09	ppm	97
50) 2,4,5-Trichlorophenol	7.78	196	58929	27.86	ppm	97
52) 2-Chloronaphthalene	7.94	162	182832	27.18	ppm	99
53) Biphenyl	7.94	154	234397	26.33	ppm	99
54) 2-Nitroaniline	8.13	65	56891	28.75	ppm	90
55) Dimethylphthalate	8.46	163	213580	27.21	ppm	99
56) Acenaphthylene	8.59	152	302131	26.69	ppm	98
57) 2,6-Dinitrotoluene	8.54	165	47737	29.83	ppm	97
58) 3-Nitroaniline	8.79	138	58009	27.45	ppm	95
59) Acenaphthene	8.87	153	185046	27.06	ppm	97
60) 2,4-Dinitrophenol	8.96	184	40855	45.93	ppm	98
61) 4-Nitrophenol	9.27	109	29246	26.81	ppm	98
62) Dibenzofuran	9.15	168	263103	27.94	ppm	97
63) 2,4-Dinitrotoluene	9.17	165	64864	26.76	ppm	94
64) 2,3,4,6-Tetrachlorophenol	9.39	232	44863	28.89	ppm	96
65) Diethylphthalate	9.60	149	214134	27.01	ppm	98
66) Fluorene	9.69	166	212970	28.16	ppm	99
67) 4-Chlorophenyl-phenylether	9.73	204	95178	28.75	ppm	98
68) 4-Nitroaniline	9.77	138	55005	28.89	ppm	97

(#) = qualifier out of range (m) = manual integration

P103018.D MP4524.M Thu Mar 03 09:17:56 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
 Acq On : 2 Mar 2016 8:36 pm Operator: sarad
 Sample : ic4524-25 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 08:58:05 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70) 4,6-Dinitro-2-methylphenol	9.81	198	32324	26.38	ppm	96
71) n-Nitrosodiphenylamine	9.93	169	157662	29.63	ppm	98
72) 1,2-Diphenylhydrazine	9.98	77	217259	28.91	ppm	97
74) 4-Bromophenyl-phenylether	10.51	248	51682	28.17	ppm	96
75) Hexachlorobenzene	10.58	284	54145	28.02	ppm	98
76) Pentachlorophenol	10.93	266	57853	41.80	ppm	100
77) Phenanthrene	11.22	178	279626	27.77	ppm	98
78) Anthracene	11.30	178	284194	27.84	ppm	98
79) Carbazole	11.61	167	295428	29.76	ppm	99
80) Di-n-butylphthalate	12.29	149	359469	29.37	ppm	99
81) Fluoranthene	13.24	202	306291	30.13	ppm	98
82) Octadecane	11.17	57	112226	31.89	ppm	95
84) Pyrene	13.63	202	321366	27.55	ppm	97
86) Butylbenzylphthalate	15.00	149	156979	28.08	ppm	99
87) Butyl stearate	15.22	56	77227	29.41	ppm	93
88) Benzo[a]anthracene	15.89	228	257688	27.49	ppm	99
89) 3,3'-Dichlorobenzidine	15.91	252	94027	29.09	ppm	99
90) Chrysene	15.95	228	253919	27.33	ppm	97
91) bis(2-Ethylhexyl)phthalate	16.17	149	206131	27.70	ppm	99
93) Di-n-octylphthalate	17.38	149	346960	23.67	ppm	99
94) Benzo[b]fluoranthene	17.83	252	263165	29.52	ppm	98
95) Benzo[k]fluoranthene	17.88	252	258312	29.57	ppm	97
96) Benzo[a]pyrene	18.36	252	243353	30.29	ppm	99
97) Indeno[1,2,3-cd]pyrene	20.09	276	214090	29.63	ppm	96
98) Dibenz(a,h)acridine	19.78	279	198286	30.49	ppm	99
99) Dibenz[a,h]anthracene	20.13	278	225316	29.98	ppm	98
100) 7,12-Dimethylbenz(a)anthra	17.84	256	115782	30.74	ppm	99
101) Benzo[g,h,i]perylene	20.46	276	234554	29.67	ppm	98

9.6.45
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103018.D MP4524.M Thu Mar 03 09:17:56 2016

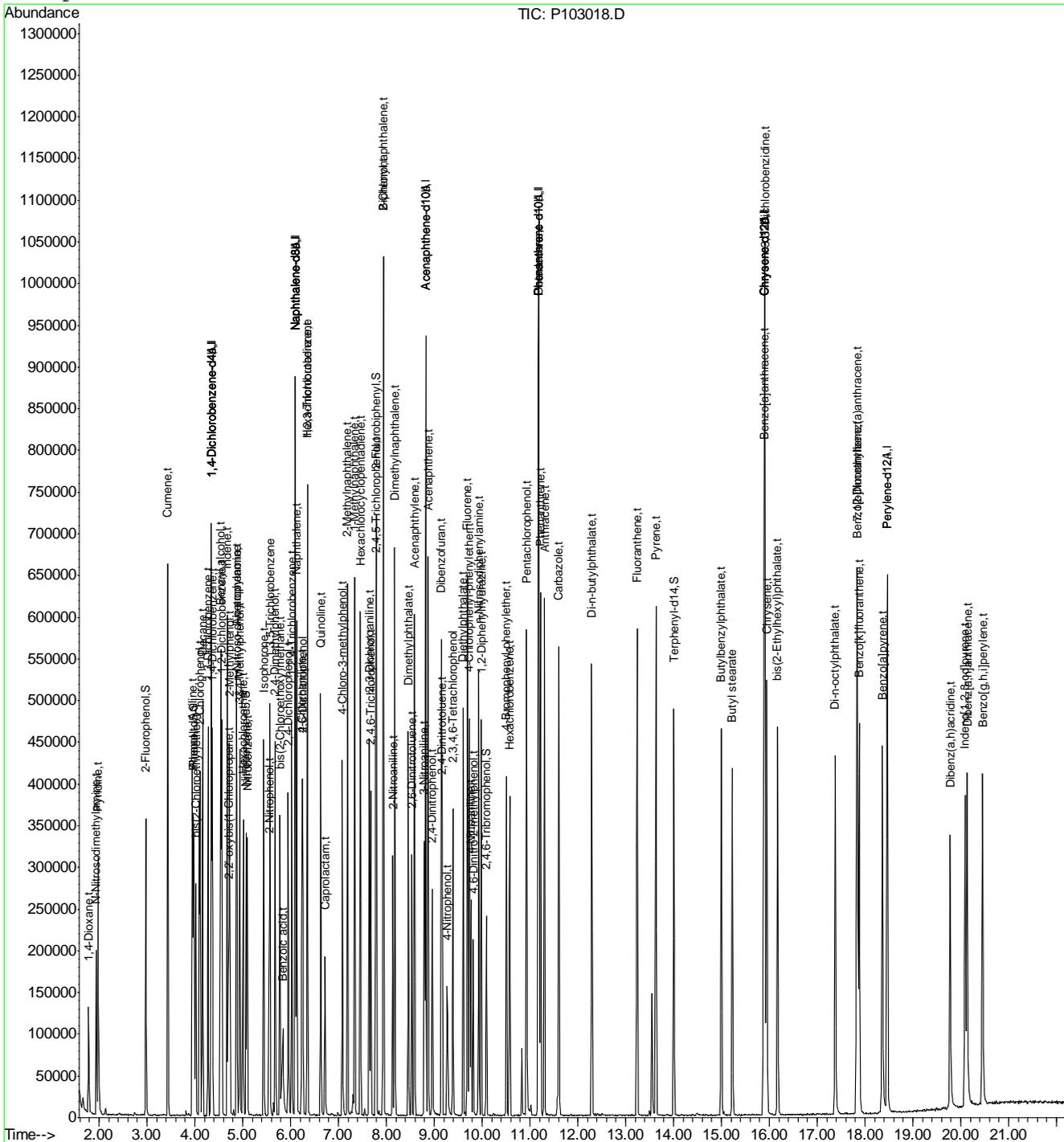
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D
Acq On : 2 Mar 2016 8:36 pm
Sample : ic4524-25
Misc : op91633,ep4524
MS Integration Params: rteint.p
Quant Time: Mar 3 9:17 2016

Vial: 9
Operator: sarad
Inst : MSP
Multiplr: 1.00

Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



9.6.45
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
 Acq On : 2 Mar 2016 9:05 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 10:47:37 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	149576	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	503799	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	294376	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	436802	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	397805	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	355781	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	149576	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	503799	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	294376	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	436802	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	397805	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	355781	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	149576	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	436802	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	397805	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	503799	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	294376	40.00	ppm	-0.04
169) Naphthalene-d8c	6.10	136	503799	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	149576	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	397753	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	397753	40.00	ppm	-0.06
180) Naphthalene-d8a	6.10	136	503799	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
9) Phenol	3.98	94	310486	47.36	ppm	88
12) 2-Chlorophenol	4.11	128	241093	48.54	ppm	99
19) 2-Methylphenol	4.72	108	214907	50.87	ppm	98
21) 3&4-Methylphenol	4.93	108	226649	49.17	ppm	99
29) 2-Nitrophenol	5.55	139	127036	52.92	ppm	98
30) 2,4-Dimethylphenol	5.67	107	227368	55.77	ppm	99
31) Benzoic acid	5.87	105	147006	46.42	ppm	97
33) 2,4-Dichlorophenol	5.95	162	177172	49.74	ppm	96
34) 2,6-Dichlorophenol	6.25	162	177036	51.78	ppm	96
43) 4-Chloro-3-methylphenol	7.07	107	196038	51.51	ppm	99
49) 2,4,6-Trichlorophenol	7.67	196	120063	52.06	ppm	100
50) 2,4,5-Trichlorophenol	7.77	196	117443	48.94	ppm	97

(#) = qualifier out of range (m) = manual integration

P103019.D MP4524.M Thu Mar 03 10:49:19 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
 Acq On : 2 Mar 2016 9:05 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 10:47:37 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) 2,4-Dinitrophenol	8.96	184	39439	39.37	ppm	96
61) 4-Nitrophenol	9.26	109	61537	50.38	ppm	99
64) 2,3,4,6-Tetrachlorophenol	9.39	232	87709	47.57	ppm	97
70) 4,6-Dinitro-2-methylphenol	9.81	198	67907	42.45	ppm	96
76) Pentachlorophenol	10.93	266	58985	43.19	ppm	98

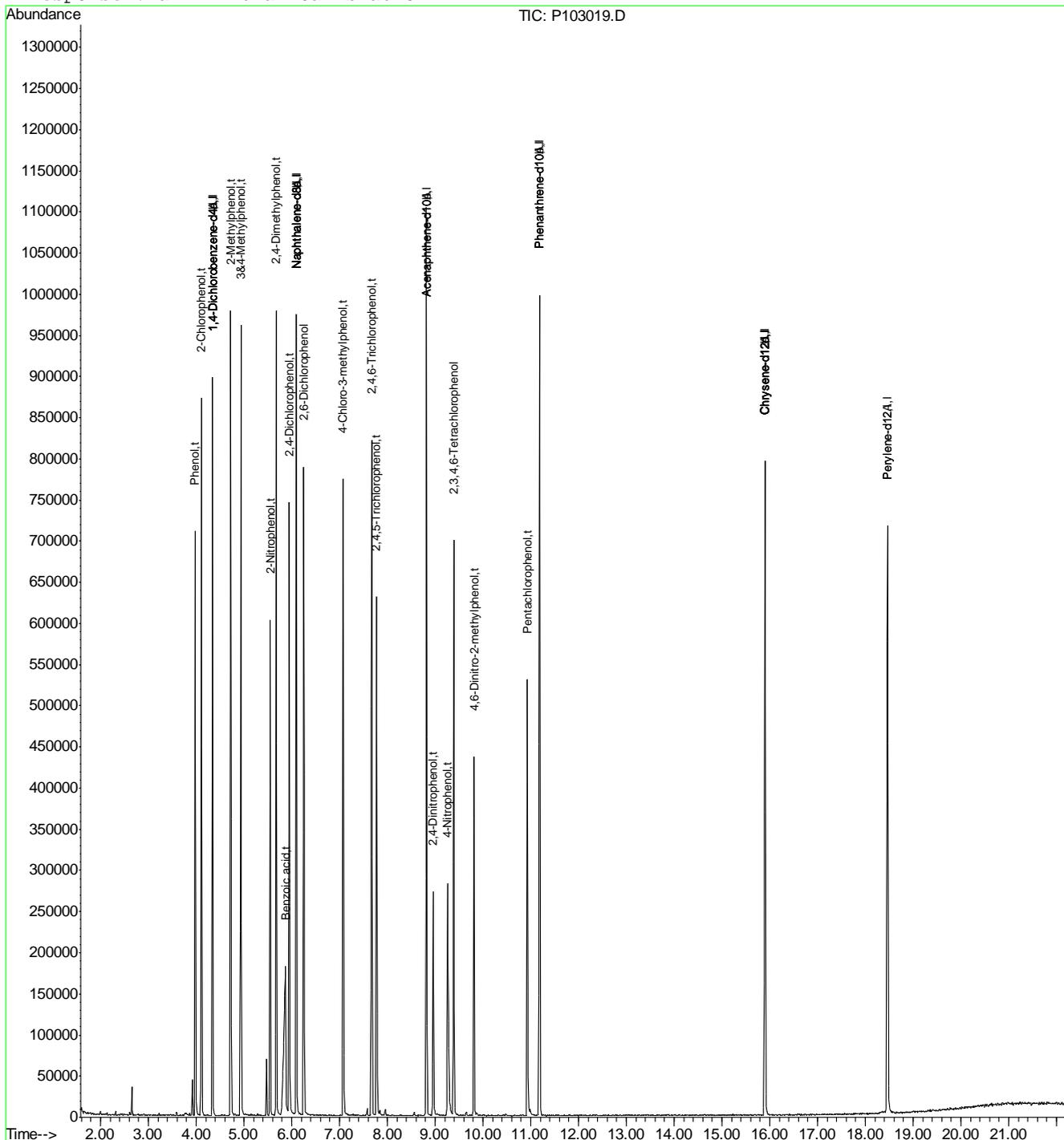
9.6.46
9

 (#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103019.D MP4524.M Thu Mar 03 10:49:19 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
 Acq On : 2 Mar 2016 9:05 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 10:49 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration



9.6.46
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
 Acq On : 2 Mar 2016 9:34 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 10:51:46 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	165057	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	607388	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	330896	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	536143	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	470505	40.00	ppm	0.00
92) Perylene-d12	18.47	264	408173	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	165057	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	607388	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	330896	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	536143	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	470505	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	408173	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	165057	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	536143	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	470505	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	607388	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	330896	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	607388	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	165057	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	470505	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	470505	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	607388	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

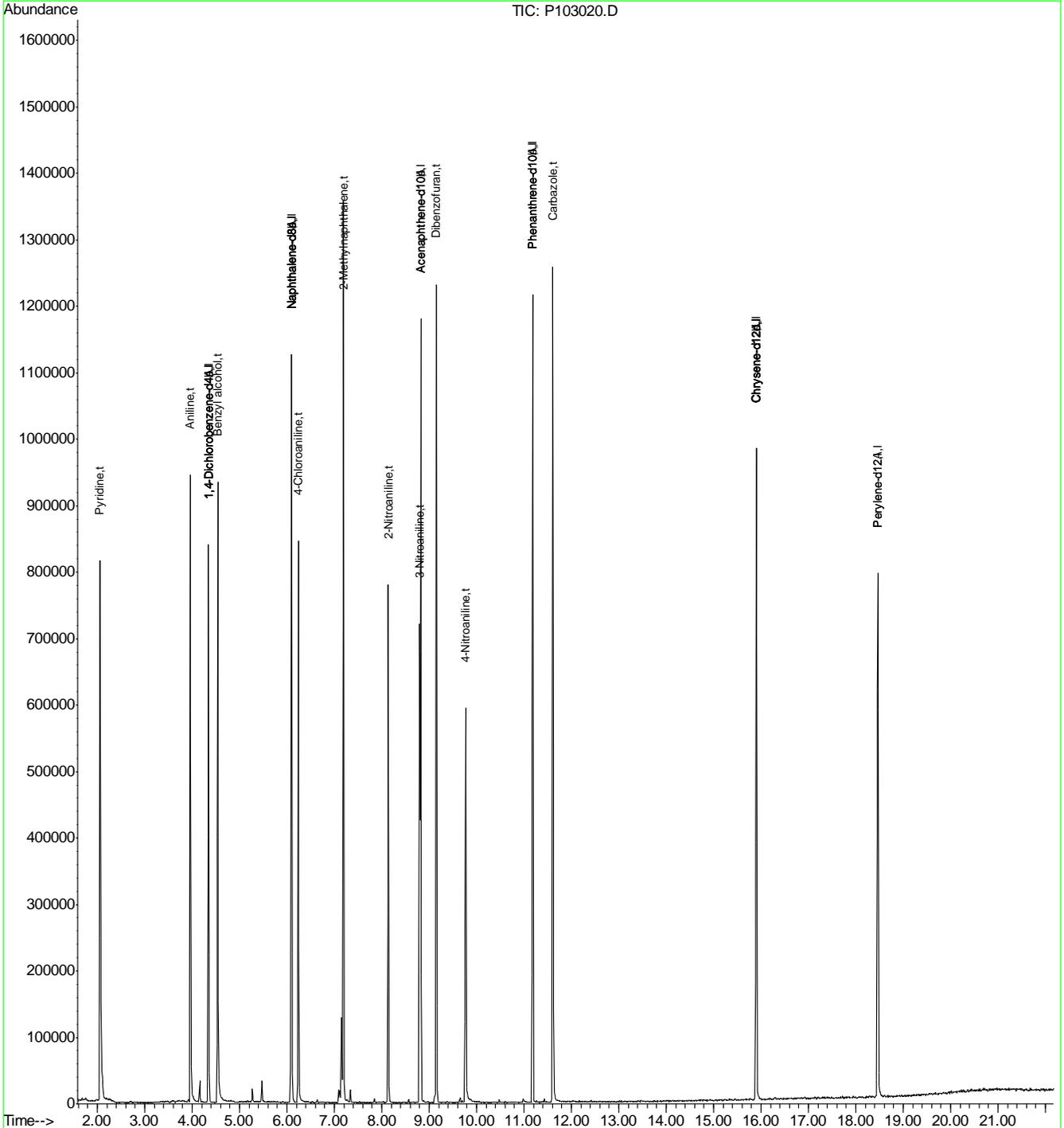
						Qvalue
3) Pyridine	2.05	79	343881	51.94	ppm	97
10) Aniline	3.96	93	418196	53.06	ppm	82
16) Benzyl alcohol	4.54	108	174956	53.69	ppm	98
39) 4-Chloroaniline	6.24	127	275208	42.97	ppm	99
44) 2-Methylnaphthalene	7.19	141	392398	47.02	ppm	97
54) 2-Nitroaniline	8.14	65	143073	56.92	ppm	96
58) 3-Nitroaniline	8.80	138	136496	54.11	ppm	98
62) Dibenzofuran	9.15	168	626653	51.53	ppm	99
68) 4-Nitroaniline	9.77	138	138652	54.71	ppm	96
79) Carbazole	11.61	167	687445	48.68	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103020.D MP4524.M Thu Mar 03 10:53:19 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
 Acq On : 2 Mar 2016 9:34 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 10:53 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration



9.6.47
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
 Acq On : 2 Mar 2016 10:03 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 10:53:33 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	147735	40.00	ppm	0.00
24) Naphthalene-d8	6.09	136	516601	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	290907	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	432489	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	382422	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	337814	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	147735	40.00	ppm	-0.03
112) Naphthalene-d8A	6.09	136	516601	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	290907	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	432489	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	382422	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	337814	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	147735	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	432489	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	382422	40.00	ppm	-0.05
165) Naphthalene-d8b	6.09	136	516601	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	290907	40.00	ppm	-0.04
169) Naphthalene-d8c	6.09	136	516601	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	147735	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	382422	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	382422	40.00	ppm	-0.06
180) Naphthalene-d8a	6.09	136	516601	40.00	ppm	0.13

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol	2.97	112	255627	49.71	ppm	0.00
Spiked Amount	50.000		Recovery	=	99.42%	
8) Phenol-d5	3.96	99	316260	50.41	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.82%	
25) Nitrobenzene-d5	5.07	82	261274	49.96	ppm	0.00
Spiked Amount	50.000		Recovery	=	99.92%	
51) 2-Fluorobiphenyl	7.79	172	434452	49.23	ppm	0.00
Spiked Amount	50.000		Recovery	=	98.46%	
73) 2,4,6-Tribromophenol	10.09	330	48286	47.75	ppm	0.00
Spiked Amount	50.000		Recovery	=	95.50%	
85) Terphenyl-d14	14.01	244	381107	50.61	ppm	0.00
Spiked Amount	50.000		Recovery	=	101.22%	

Target Compounds Qvalue

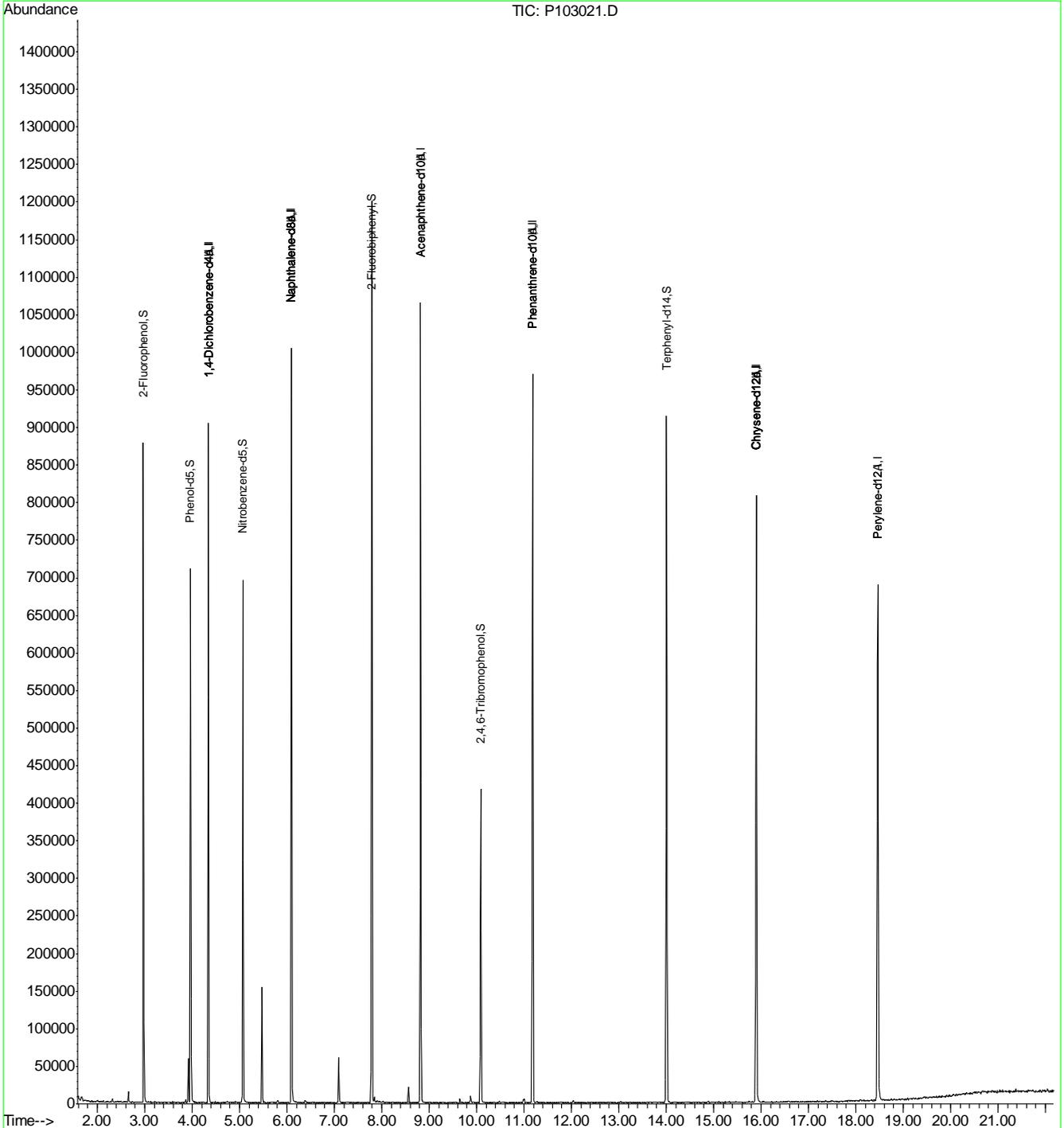
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103021.D MP4524.M Thu Mar 03 10:55:48 2016

9.6.48
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
 Acq On : 2 Mar 2016 10:03 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 10:55 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration



9.6.48
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
 Acq On : 2 Mar 2016 10:32 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 10:55:57 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	147977	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	502321	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	292838	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	450924	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	354813	40.00	ppm	0.00
92) Perylene-d12	18.47	264	324202	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	147977	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	502321	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	292838	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	450924	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	354813	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	324202	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.34	152	147977	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	450924	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	354813	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	502321	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	292838	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	502321	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	147977	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	354813	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	354813	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	502321	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
4) N-Nitrosodimethylamine	1.94	42	100466	45.27	ppm	97
11) bis(2-Chloroethyl)ether	4.02	93	250856	52.58	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	267100	48.52	ppm	100
15) 1,4-Dichlorobenzene	4.36	146	254446	48.13	ppm	96
17) 1,2-Dichlorobenzene	4.56	146	252827	50.40	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.70	121	70906m	45.19	ppm	
22) n-Nitroso-di-n-propylamine	4.88	70	165394	49.53	ppm	98
23) Hexachloroethane	5.00	201	85287	49.50	ppm	93
26) Nitrobenzene	5.10	77	235985	48.37	ppm	96
28) Isophorone	5.44	82	440842	53.28	ppm	99
32) bis(2-Chloroethoxy)methane	5.78	93	262567	50.25	ppm	97
36) 1,2,4-Trichlorobenzene	6.02	180	194922	49.53	ppm	96

(#) = qualifier out of range (m) = manual integration

P103022.D MP4524.M Thu Mar 03 11:02:09 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
 Acq On : 2 Mar 2016 10:32 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 10:55:57 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Naphthalene	6.13	128	620274	49.79	ppm	99
42) Hexachlorobutadiene	6.34	225	101443	51.87	ppm	99
52) 2-Chloronaphthalene	7.94	162	394779	51.32	ppm	98
55) Dimethylphthalate	8.47	163	428353	48.18	ppm	99
56) Acenaphthylene	8.59	152	579395	47.15	ppm	99
57) 2,6-Dinitrotoluene	8.54	165	93484	49.29	ppm	91
59) Acenaphthene	8.87	153	372302	48.75	ppm	99
63) 2,4-Dinitrotoluene	9.17	165	127397	43.76	ppm	96
65) Diethylphthalate	9.60	149	422921	47.86	ppm	99
66) Fluorene	9.69	166	427669	48.67	ppm	99
67) 4-Chlorophenyl-phenylether	9.74	204	185257	46.99	ppm	97
71) n-Nitrosodiphenylamine	9.93	169	302754	46.62	ppm	97
72) 1,2-Diphenylhydrazine	9.98	77	418609	47.05	ppm	97
74) 4-Bromophenyl-phenylether	10.51	248	108414	49.14	ppm	94
75) Hexachlorobenzene	10.58	284	106751	44.57	ppm	96
77) Phenanthrene	11.22	178	553887	47.89	ppm	100
78) Anthracene	11.30	178	548726	47.32	ppm	98
80) Di-n-butylphthalate	12.29	149	700159	50.57	ppm	100
81) Fluoranthene	13.24	202	605721	48.66	ppm	100
84) Pyrene	13.63	202	617401	54.68	ppm	99
86) Butylbenzylphthalate	15.00	149	309331	56.34	ppm	98
88) Benzo[a]anthracene	15.89	228	503192	54.35	ppm	99
90) Chrysene	15.95	228	477209	52.08	ppm	98
91) bis(2-Ethylhexyl)phthalate	16.17	149	398242	46.47	ppm	99
93) Di-n-octylphthalate	17.38	149	677691	48.96	ppm	99
94) Benzo[b]fluoranthene	17.83	252	483064	52.39	ppm	98
95) Benzo[k]fluoranthene	17.88	252	499185	56.20	ppm	98
96) Benzo[a]pyrene	18.37	252	467487	57.48	ppm	97
97) Indeno[1,2,3-cd]pyrene	20.09	276	415393	57.85	ppm	98
99) Dibenz[a,h]anthracene	20.14	278	434182	56.12	ppm	98
101) Benzo[g,h,i]perylene	20.46	276	443324	53.91	ppm	99

9.6.49
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103022.D MP4524.M Thu Mar 03 11:02:09 2016

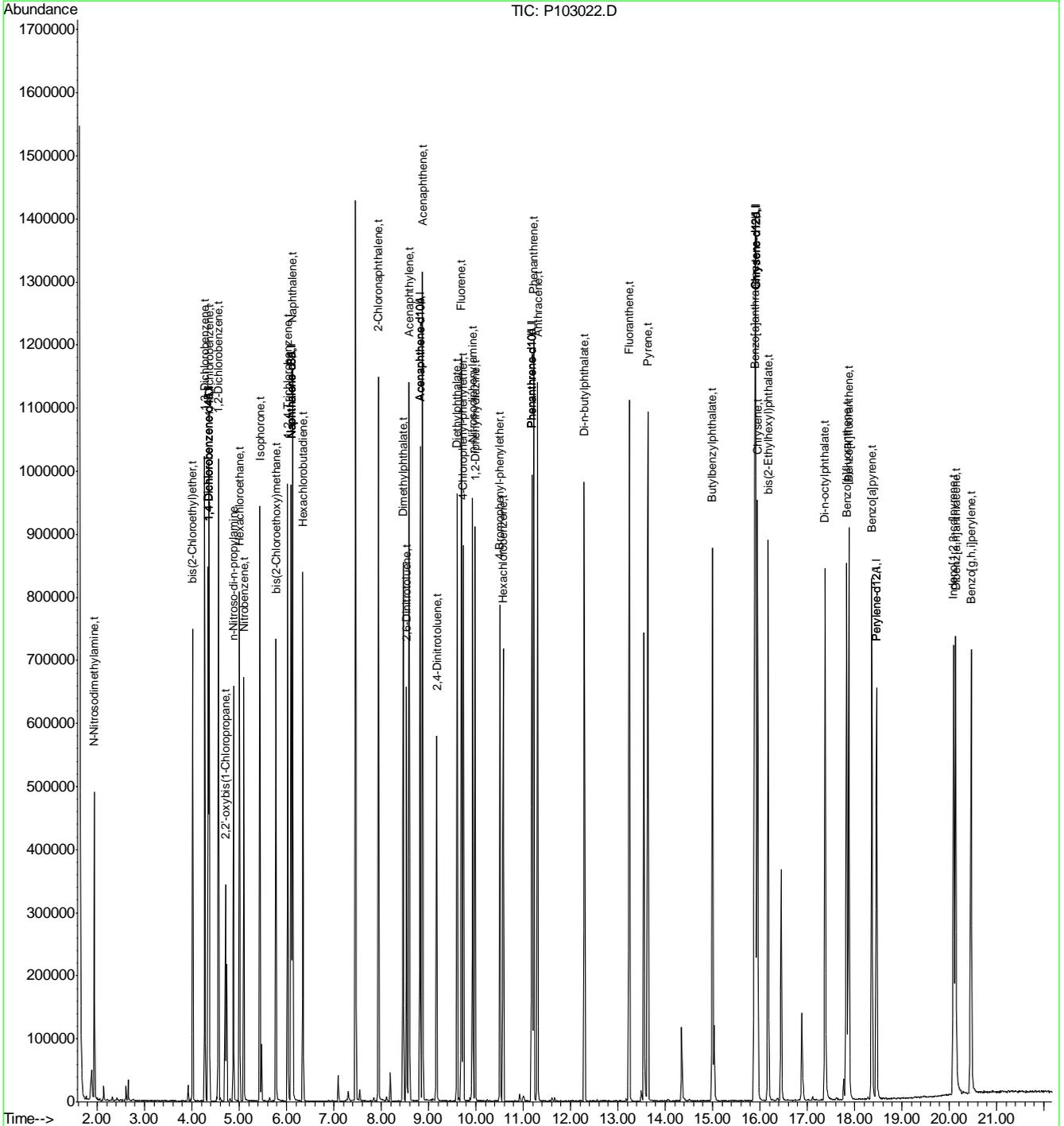
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D
 Acq On : 2 Mar 2016 10:32 pm
 Sample : icv4524-50
 Misc : op91633,ep4524
 MS Integration Params: rteint.p
 Quant Time: Mar 3 11:02 2016

Vial: 13
 Operator: sarad
 Inst : MSP
 Multiplr: 1.00

Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EP4524-ICV4524 Method: SW846 8270D
Lab FileID: P103022.D Analyst approved: 03/03/16 11:25 Linsey Kirschmann
Injection Time: 03/02/16 22:32 Supervisor approved: 03/03/16 15:11 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
bis(2-Chloroisopropyl)ether	108-60-1		4.70	Split peak

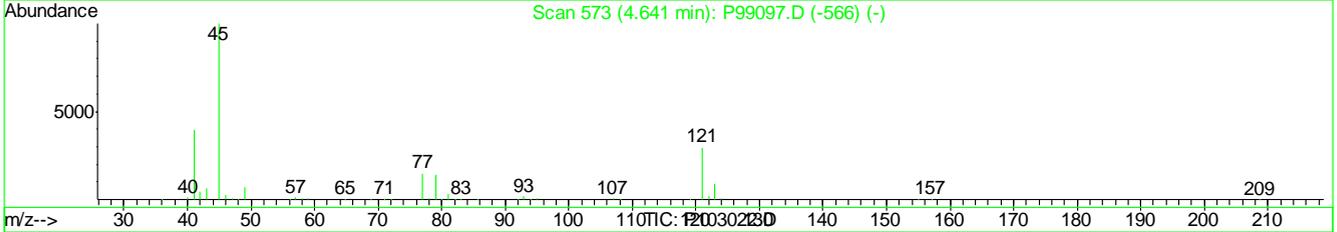
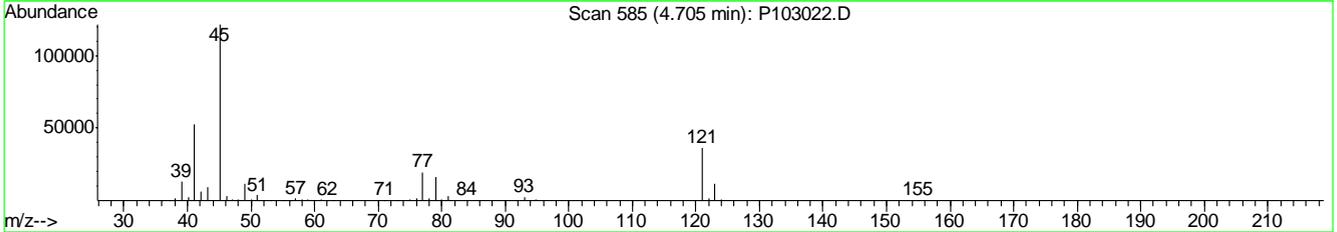
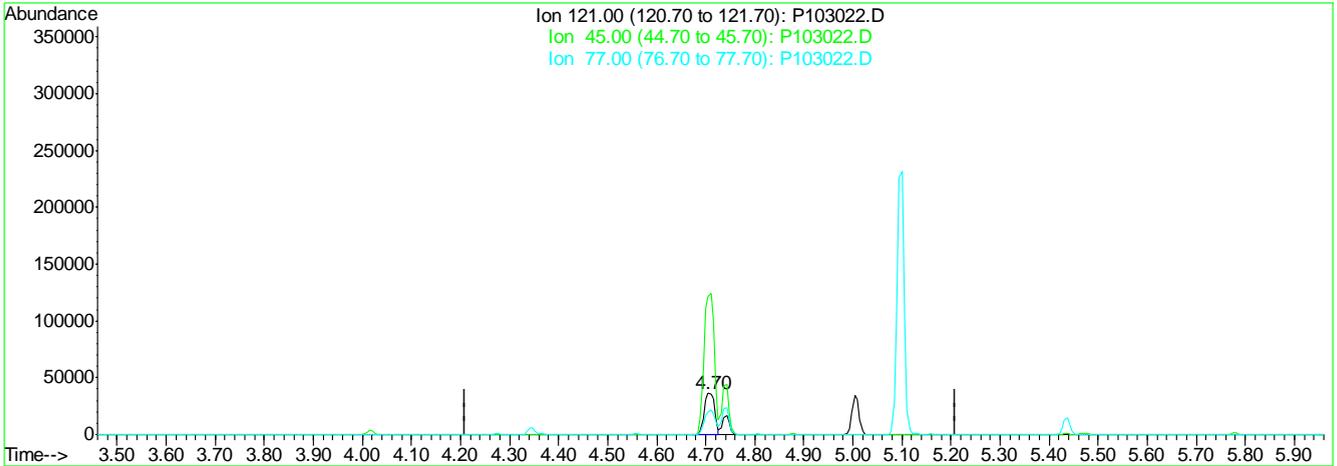
9.6.49.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
 Acq On : 2 Mar 2016 10:32 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 10:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration



(20) 2,2'-oxybis(1-Chloropropane (t))

4.70min 34.84ppm

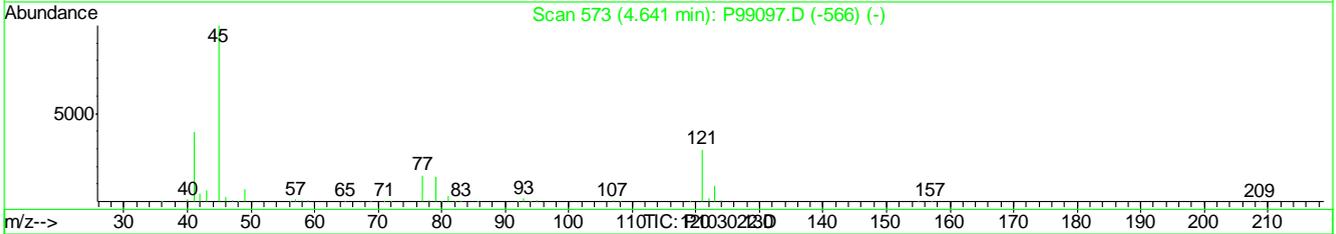
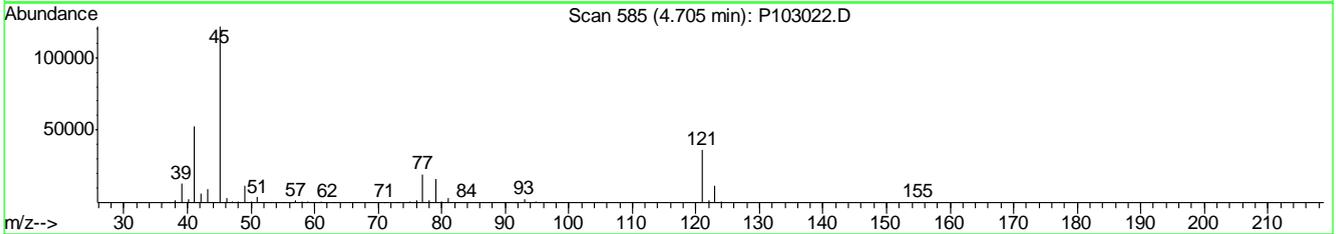
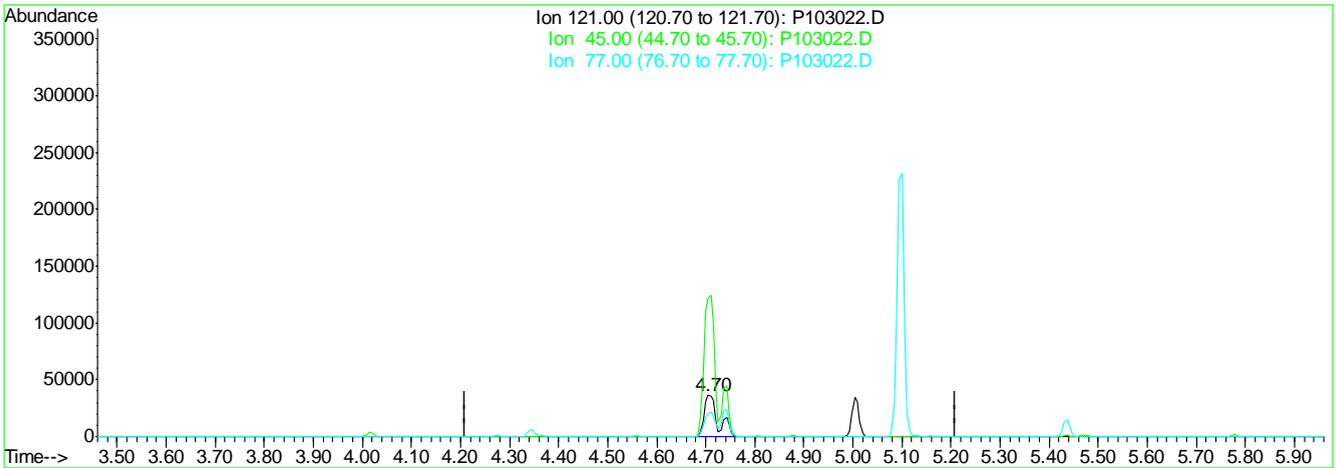
response 54660

Ion	Exp%	Act%
121.00	100	100
45.00	344.10	335.24
77.00	51.90	46.67
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
 Acq On : 2 Mar 2016 10:32 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 10:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Multiple Level Calibration



(20) 2,2'-oxybis(1-Chloropropane (t))

4.70min 45.19ppm m

response 70906

Ion	Exp%	Act%
121.00	100	100
45.00	344.10	333.44
77.00	51.90	53.69
0.00	0.00	0.00

9.6.49.3
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
 Acq On : 2 Mar 2016 11:02 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 11:20:23 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	127339	40.00	ppm	0.00
24) Naphthalene-d8	6.09	136	457549	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	255729	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	363505	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	347332	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	296697	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	127339	40.00	ppm	-0.03
112) Naphthalene-d8A	6.09	136	457549	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	255729	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	363505	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	347332	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	296697	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	127339	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	363505	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	347332	40.00	ppm	-0.05
165) Naphthalene-d8b	6.09	136	457549	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	255729	40.00	ppm	-0.04
169) Naphthalene-d8c	6.09	136	457549	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	127339	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	347332	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	347332	40.00	ppm	-0.06
180) Naphthalene-d8a	6.09	136	457549	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.78	88	98061	43.34	ppm	91
6) Indene	4.67	116	344256	47.53	ppm	98
7) Cumene	3.43	105	482301	46.10	ppm	99
13) Decane	4.16	43	153028	45.48	ppm	98
18) Acetophenone	4.86	105	265568	46.37	ppm	98
27) Quinoline	6.63	129	360557	43.73	ppm	99
40) 2,3-Dichloroaniline	7.64	161	168248	40.93	ppm	99
41) Caprolactam	6.71	55	69184	45.49	ppm	93
45) 1-Methylnaphthalene	7.34	142	345005	44.99	ppm	100
46) Dimethylnaphthalene	8.18	156	303892	45.31	ppm	99
48) Hexachlorocyclopentadiene	7.46	237	86594	51.98	ppm	99
53) Biphenyl	7.94	154	416380	48.21	ppm	99

(#) = qualifier out of range (m) = manual integration

P103023.D MP4524.M Thu Mar 03 11:22:12 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
 Acq On : 2 Mar 2016 11:02 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 11:20:23 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
82) Octadecane	11.17	57	187929	51.34 ppm	97
100) 7,12-Dimethylbenz(a)anthra	17.84	256	191465	53.59 ppm	99

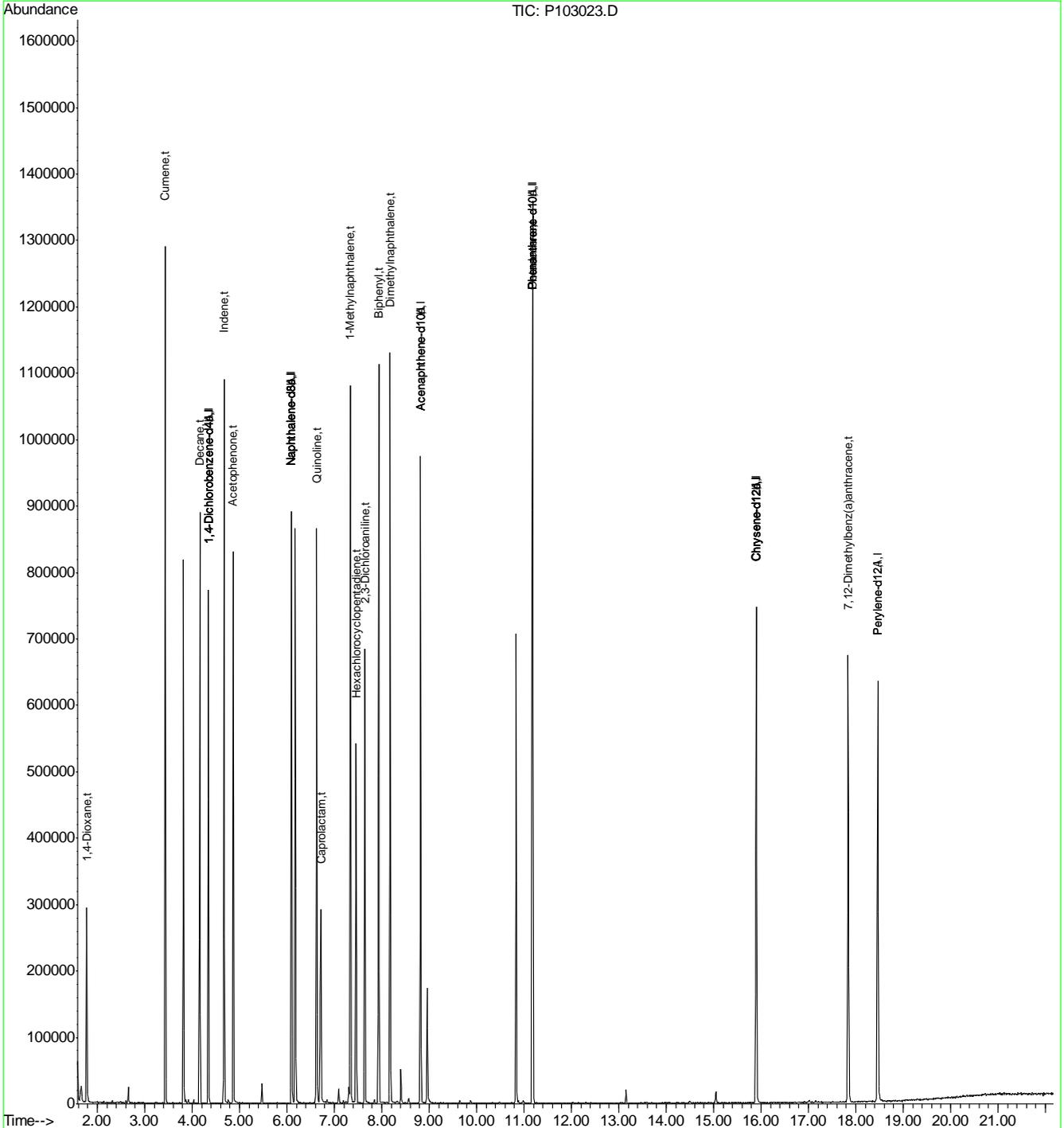
9.6-50
9

 (#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103023.D MP4524.M Thu Mar 03 11:22:13 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
 Acq On : 2 Mar 2016 11:02 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 11:22 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration



9.6:50
6

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D Vial: 15
 Acq On : 2 Mar 2016 11:31 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 03 11:03:32 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	158201	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	545592	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	322768	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	489171	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	437455	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	397000	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	158201	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	545592	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	322768	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	489171	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	437455	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	397000	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	158201	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	489171	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	437455	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	545592	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	322768	40.00	ppm	-0.04
169) Naphthalene-d8c	6.10	136	545592	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	158201	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	437455	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	437455	40.00	ppm	-0.06
180) Naphthalene-d8a	6.10	136	545592	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
89) 3,3'-Dichlorobenzidine	15.91	252	206949	43.27	ppm	97

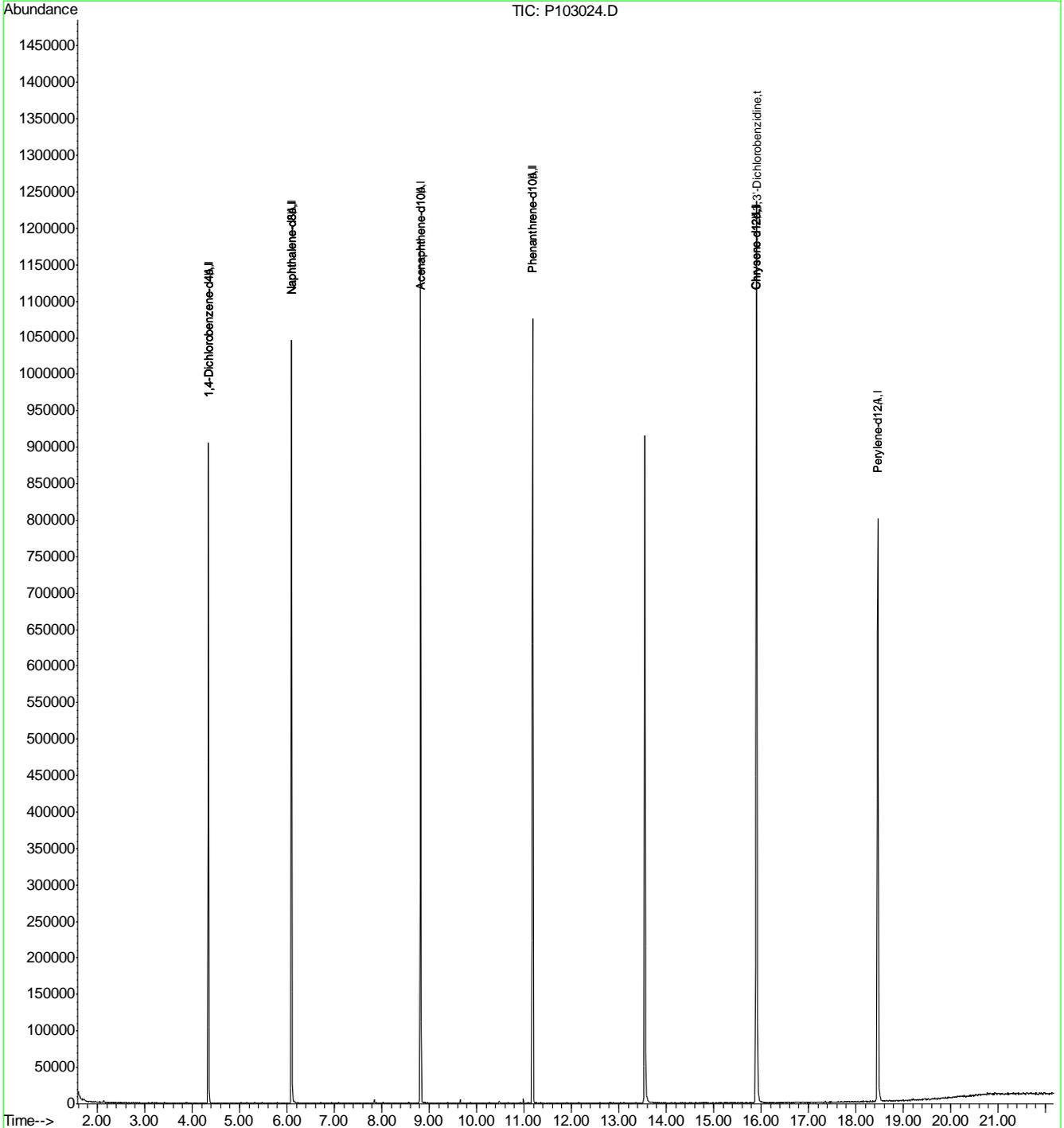
(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103024.D MP4524.M Thu Mar 03 11:04:27 2016

9.6-51
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D Vial: 15
 Acq On : 2 Mar 2016 11:31 pm Operator: sarad
 Sample : icv4524-50 Inst : MSP
 Misc : op91633,ep4524 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 3 11:04 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 03 10:44:44 2016
 Response via : Initial Calibration



9.6.51
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103292.D Vial: 2
 Acq On : 14 Mar 2016 8:45 am Operator: linseyk
 Sample : cc4524-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 09:08:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	235362	40.00	ppm	0.00
24) Naphthalene-d8	5.97	136	801388	40.00	ppm	0.00
47) Acenaphthene-d10	8.68	164	467059	40.00	ppm	0.00
69) Phenanthrene-d10	11.04	188	686475	40.00	ppm	0.00
83) Chrysene-d12	15.72	240	609333	40.00	ppm	0.00
92) Perylene-d12	18.27	264	573496	40.00	ppm	-0.03
102) 1,4-Dichlorobenzene-d4b	4.22	152	235362	40.00	ppm	-0.01
104) Phenanthrene-d10b	11.04	188	686475	40.00	ppm	-0.02
106) Chrysene-d12b	15.72	240	609333	40.00	ppm	-0.03
108) Naphthalene-d8b	5.97	136	801388	40.00	ppm	-0.01
110) Acenaphthene-d10b	8.68	164	467059	40.00	ppm	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol	2.85	112	222492	27.16	ppm	-0.02
Spiked Amount 50.000			Recovery =	54.32%		
8) Phenol-d5	3.82	99	266355	26.65	ppm	0.00
Spiked Amount 50.000			Recovery =	53.30%		
25) Nitrobenzene-d5	4.94	82	225277	27.77	ppm	-0.02
Spiked Amount 50.000			Recovery =	55.54%		
51) 2-Fluorobiphenyl	7.65	172	350443	24.73	ppm	-0.01
Spiked Amount 50.000			Recovery =	49.46%		
73) 2,4,6-Tribromophenol	9.94	330	43517	27.11	ppm	-0.02
Spiked Amount 50.000			Recovery =	54.22%		
85) Terphenyl-d14	13.83	244	307901	25.66	ppm	-0.01
Spiked Amount 50.000			Recovery =	51.32%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.70	88	110325	26.38	ppm	98
3) Pyridine	1.89	79	257587	27.29	ppm	98
4) N-Nitrosodimethylamine	1.86	42	102842	29.14	ppm	88
6) Indene	4.54	116	344215	25.71	ppm	98
7) Cumene	3.32	105	495708	25.63	ppm	99
9) Phenol	3.84	94	274758	26.64	ppm	81
10) Aniline	3.82	93	260723	23.20	ppm	71
11) bis(2-Chloroethyl)ether	3.90	93	191912	25.29	ppm	93
12) 2-Chlorophenol	3.98	128	198246	25.37	ppm	96
13) Decane	4.04	43	174949	28.13	ppm	98
14) 1,3-Dichlorobenzene	4.15	146	214585	24.51	ppm	100
15) 1,4-Dichlorobenzene	4.24	146	206333	24.54	ppm	99
16) Benzyl alcohol	4.41	108	124630	26.82	ppm	95
17) 1,2-Dichlorobenzene	4.43	146	193865	24.30	ppm	99
18) Acetophenone	4.74	105	272443	25.74	ppm	98
19) 2-Methylphenol	4.59	108	170337	25.62	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.58	121	60370	24.19	ppm	# 63
21) 3&4-Methylphenol	4.80	108	189992	26.19	ppm	99
22) n-Nitroso-di-n-propylamine	4.76	70	142936	26.91	ppm	95
23) Hexachloroethane	4.88	201	67254	24.54	ppm	95
26) Nitrobenzene	4.97	77	212137	27.25	ppm	99
27) Quinoline	6.49	129	370381	25.65	ppm	98
28) Isophorone	5.31	82	373780	28.32	ppm	97

(#) = qualifier out of range (m) = manual integration

P103292.D MP4524.M Mon Mar 14 14:38:33 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103292.D Vial: 2
 Acq On : 14 Mar 2016 8:45 am Operator: linseyk
 Sample : cc4524-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 09:08:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) 2-Nitrophenol	5.42	139	104686	27.42	ppm	98
30) 2,4-Dimethylphenol	5.54	107	169340	26.11	ppm	98
31) Benzoic acid	5.72	105	141448	28.08	ppm	98
32) bis(2-Chloroethoxy)methane	5.65	93	226791	27.21	ppm	97
33) 2,4-Dichlorophenol	5.80	162	151856	26.80	ppm	98
34) 2,6-Dichlorophenol	6.11	162	139140	25.59	ppm	98
35) 1,3,5-Trichlorobenzene	5.44	180	159270	25.08	ppm	99
36) 1,2,4-Trichlorobenzene	5.89	180	156775	24.97	ppm	97
37) 1,2,3-Trichlorobenzene	6.22	180	144324	25.03	ppm	99
38) Naphthalene	5.99	128	495053	24.91	ppm	99
39) 4-Chloroaniline	6.10	127	223561	26.46	ppm	98
40) 2,3-Dichloroaniline	7.50	161	185750	25.80	ppm	99
41) Caprolactam	6.61	55	81562	30.62	ppm	96
42) Hexachlorobutadiene	6.21	225	75451	24.18	ppm	99
43) 4-Chloro-3-methylphenol	6.93	107	177465	29.32	ppm	100
44) 2-Methylnaphthalene	7.05	141	276459	25.11	ppm	99
45) 1-Methylnaphthalene	7.20	142	339711	25.29	ppm	98
46) Dimethylnaphthalene	8.04	156	295790	25.18	ppm	99
48) Hexachlorocyclopentadiene	7.32	237	162849	53.52	ppm	100
49) 2,4,6-Trichlorophenol	7.53	196	97560	26.66	ppm	99
50) 2,4,5-Trichlorophenol	7.61	196	104293	27.39	ppm	97
52) 2-Chloronaphthalene	7.80	162	302336	24.64	ppm	100
53) Biphenyl	7.80	154	384904	24.40	ppm	100
54) 2-Nitroaniline	8.00	65	109483	30.86	ppm	96
55) Dimethylphthalate	8.33	163	367926	25.94	ppm	98
56) Acenaphthylene	8.44	152	482523	24.62	ppm	99
57) 2,6-Dinitrotoluene	8.40	165	84658	27.99	ppm	91
58) 3-Nitroaniline	8.65	138	98996	27.80	ppm	94
59) Acenaphthene	8.73	153	302016	24.80	ppm	99
60) 2,4-Dinitrophenol	8.82	184	78606	47.63	ppm	93
61) 4-Nitrophenol	9.06	109	51207	26.42	ppm	97
62) Dibenzofuran	9.01	168	431947	25.17	ppm	94
63) 2,4-Dinitrotoluene	9.03	165	110553	23.19	ppm	96
64) 2,3,4,6-Tetrachlorophenol	9.24	232	75894	25.94	ppm	95
65) Diethylphthalate	9.46	149	370482	26.28	ppm	99
66) Fluorene	9.55	166	352501	25.15	ppm	99
67) 4-Chlorophenyl-phenylether	9.59	204	154147	24.51	ppm	96
68) 4-Nitroaniline	9.63	138	94469	26.41	ppm	99
70) 4,6-Dinitro-2-methylphenol	9.67	198	58811	24.76	ppm	94
71) n-Nitrosodiphenylamine	9.79	169	264247	26.73	ppm	99
72) 1,2-Diphenylhydrazine	9.84	77	386187	28.51	ppm	99
74) 4-Bromophenyl-phenylether	10.36	248	88425	26.33	ppm	98
75) Hexachlorobenzene	10.43	284	89369	24.51	ppm	96
76) Pentachlorophenol	10.77	266	108431	49.78	ppm	99
77) Phenanthrene	11.07	178	444400	25.24	ppm	98
78) Anthracene	11.15	178	459778	26.05	ppm	99
79) Carbazole	11.45	167	467080	25.83	ppm	99
80) Di-n-butylphthalate	12.14	149	602486	28.58	ppm	99
81) Fluoranthene	13.07	202	493339	26.03	ppm	97

(#) = qualifier out of range (m) = manual integration

P103292.D MP4524.M Mon Mar 14 14:38:33 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103292.D Vial: 2
 Acq On : 14 Mar 2016 8:45 am Operator: linseyk
 Sample : cc4524-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 09:08:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82) Octadecane	11.03	57	191420	27.69	ppm	98
84) Pyrene	13.46	202	507413	26.17	ppm	95
86) Butylbenzylphthalate	14.82	149	268780	28.50	ppm	98
87) Butyl stearate	15.05	56	146540	26.24	ppm	95
88) Benzo[a]anthracene	15.70	228	411245	25.87	ppm	99
89) 3,3'-Dichlorobenzidine	15.73	252	151774	22.86	ppm	98
90) Chrysene	15.77	228	393806	25.02	ppm	98
91) bis(2-Ethylhexyl)phthalate	15.99	149	356685	23.91	ppm	97
93) Di-n-octylphthalate	17.19	149	602340	23.39	ppm	98
94) Benzo[b]fluoranthene	17.64	252	426891	26.17	ppm	99
95) Benzo[k]fluoranthene	17.69	252	410208	26.11	ppm	96
96) Benzo[a]pyrene	18.17	252	386161	26.84	ppm	99
97) Indeno[1,2,3-cd]pyrene	19.89	276	352145	27.72	ppm	97
98) Dibenz(a,h)acridine	19.58	279	334538	27.66	ppm	98
99) Dibenz[a,h]anthracene	19.94	278	375558	27.44	ppm	98
100) 7,12-Dimethylbenz(a)anthra	17.65	256	177211	25.66	ppm	99
101) Benzo[g,h,i]perylene	20.25	276	387139	26.61	ppm	96

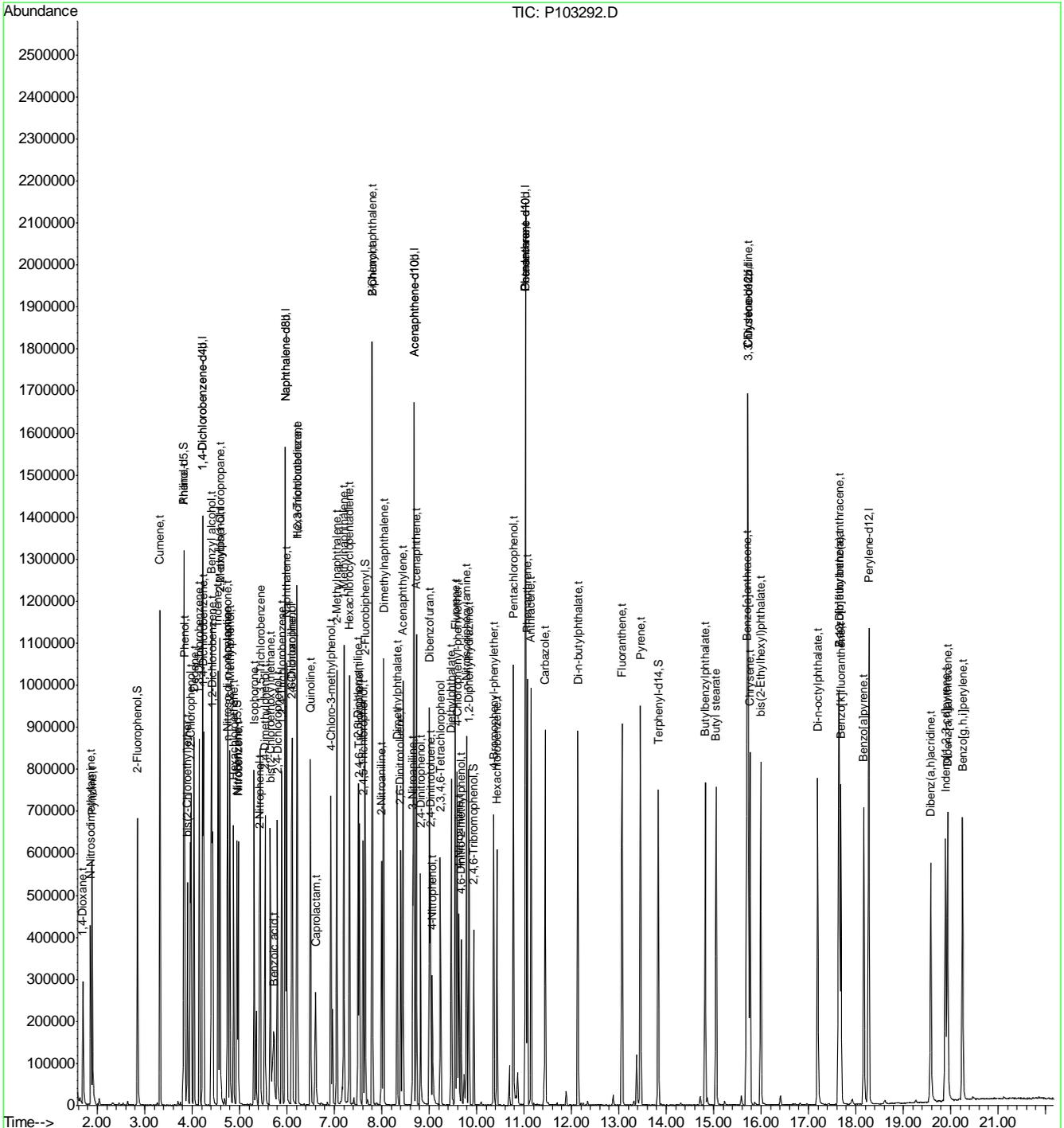
9.6.52
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103292.D MP4524.M Mon Mar 14 14:38:33 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103292.D Vial: 2
 Acq On : 14 Mar 2016 8:45 am Operator: linseyk
 Sample : cc4524-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 9:09 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103293.D Vial: 3
 Acq On : 14 Mar 2016 9:14 am Operator: linseyk
 Sample : cc4514-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 09:36:46 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	173789	40.00	ppm	0.00
24) Naphthalene-d8	5.96	136	618653	40.00	ppm	0.00
47) Acenaphthene-d10	8.67	164	345252	40.00	ppm	0.00
69) Phenanthrene-d10	11.03	188	515377	40.00	ppm	0.00
83) Chrysene-d12	15.72	240	469943	40.00	ppm	0.00
92) Perylene-d12	18.26	264	437374	40.00	ppm	-0.04
102) 1,4-Dichlorobenzene-d4b	4.22	152	173789	40.00	ppm	-0.01
104) Phenanthrene-d10b	11.03	188	515377	40.00	ppm	-0.02
106) Chrysene-d12b	15.72	240	469943	40.00	ppm	-0.03
108) Naphthalene-d8b	5.96	136	618653	40.00	ppm	-0.02
110) Acenaphthene-d10b	8.67	164	345252	40.00	ppm	-0.02

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

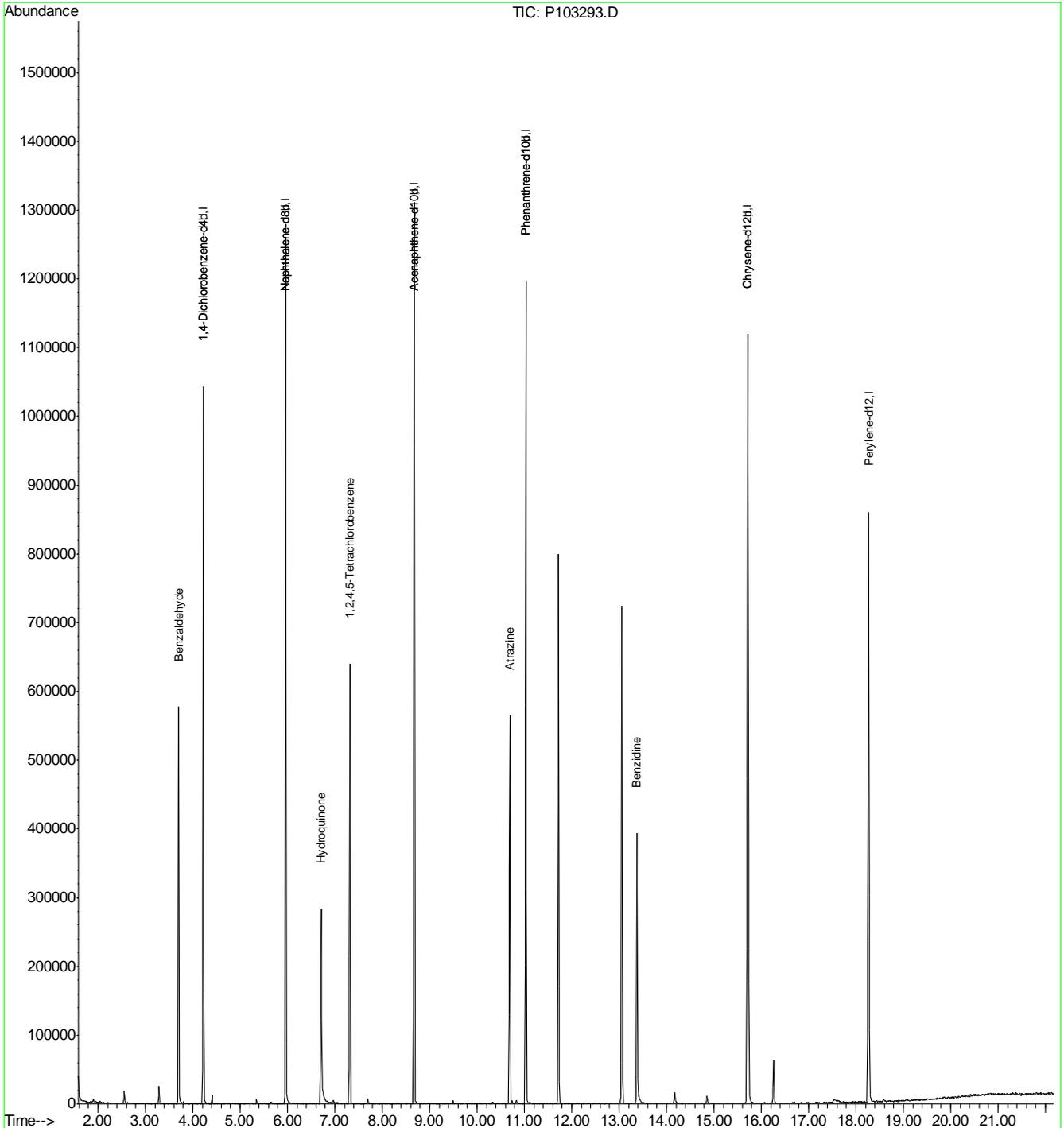
						Qvalue
103) Benzaldehyde	3.70	105	125981	24.12	ppm	99
105) Atrazine	10.69	200	72978	27.75	ppm	90
107) Benzidine	13.38	184	203498	24.60	ppm	98
109) Hydroquinone	6.71	110	150925	26.61	ppm	98
111) 1,2,4,5-Tetrachlorobenzene	7.32	216	119479	25.22	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103293.D MP4524.M Mon Mar 14 14:38:50 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103293.D Vial: 3
 Acq On : 14 Mar 2016 9:14 am Operator: linseyk
 Sample : cc4514-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 9:37 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 22:35:39 2016
 Response via : Initial Calibration



9.6.53
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 10:07:46 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.22	152	153393	40.00	ppm	-0.07
24) Naphthalene-d8	5.96	136	517334	40.00	ppm	-0.08
47) Acenaphthene-d10	8.67	164	308715	40.00	ppm	-0.09
69) Phenanthrene-d10	11.03	188	452940	40.00	ppm	-0.09
83) Chrysene-d12	15.72	240	417340	40.00	ppm	-0.11
92) Perylene-d12	18.27	264	363982	40.00	ppm	-0.12
102) 1,4-Dichlorobenzene-d4A	4.22	152	153393	40.00	ppm	-0.07
112) Naphthalene-d8A	5.96	136	517334	40.00	ppm	-0.08
121) Acenaphthene-d10A	8.67	164	308715	40.00	ppm	-0.09
132) Phenanthrene-d10A	11.03	188	452940	40.00	ppm	-0.09
147) Chrysene-d12A	15.72	240	417340	40.00	ppm	-0.11
155) Perylene-d12A	18.27	264	363982	40.00	ppm	-0.12
159) 1,4-Dichlorobenzene-d4b	4.22	152	153393	40.00	ppm	-0.07
161) Phenanthrene-d10b	11.03	188	452940	40.00	ppm	-0.09
163) Chrysene-d12b	15.72	240	417340	40.00	ppm	-0.11
165) Naphthalene-d8b	5.96	136	517334	40.00	ppm	-0.08
167) Acenaphthene-d10b	8.67	164	308715	40.00	ppm	-0.09
169) Naphthalene-d8c	5.96	136	517334	40.00	ppm	-0.08
174) 1,4-Dichlorobenzene-d4a	4.22	152	153393	40.00	ppm	-0.07
176) Chrysene-d12c	15.72	240	417340	40.00	ppm	-0.11
178) Chrysene-d12d	15.72	240	417340	40.00	ppm	-0.11
180) Naphthalene-d8a	5.96	136	517334	40.00	ppm	-0.08

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

						Qvalue
103) 2-Picoline	2.36	93	176876	26.91	ppm	97
104) Pentachloroethane	3.88	167	57227	26.02	ppm	99
105) Methyl methanesulfonate	2.67	80	84711	26.09	ppm	94
106) N-Nitrosodiethylamine	3.03	102	70307	26.28	ppm	93
107) N-Nitrosomethylethylamine	2.43	42	66647	30.18	ppm	95
108) Ethyl methanesulfonate	3.33	79	118209	27.40	ppm	96
109) N-Nitrosopyrrolidine	4.70	41	46197	30.04	ppm	87
110) N-Nitrosomorpholine	4.76	56	71888	29.32	ppm	88
111) o-Toluidine	4.79	106	186915	23.83	ppm #	1
113) O,O,O-Triethyl phosphoroth	5.61	198	54893	26.80	ppm	89
114) N-Nitrosopiperidine	5.17	42	79078	30.58	ppm	90
115) A,A-Dimethylphenethylamine	5.81	58	223071m	24.04	ppm	

(#) = qualifier out of range (m) = manual integration
 P103294.D MP4524AP9.M Mon Mar 14 14:41:12 2016

9.6.54
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 10:07:46 2016 Quant Results File: MP4524AP9.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Initial Calibration
 DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
116) Hexachloropropene	6.14	213	71404	26.77	ppm	99
117) N-Nitrosodi-n-butylamine	6.64	84	91996	28.13	ppm	98
118) p-Phenylenediamine	6.63	108	41332	17.86	ppm #	91
119) Safrole	6.95	162	92389	27.24	ppm	100
120) Isosafrole	7.76	162	27956	26.82	ppm	89
122) Thionazin	9.58	143	32172	26.21	ppm	94
123) Tetraethyl dithiopyrophosp	10.11	322	29378	28.38	ppm	100
124) Phorate	10.28	75	220381	38.25	ppm	100
125) Phenacetin	10.33	108	128762	26.25	ppm	96
126) 1,4-Naphthoquinone	8.08	158	51901	23.67	ppm	88
127) m-Dinitrobenzene	8.33	168	39509	27.62	ppm	95
128) Pentachlorobenzene	8.95	250	82451	24.47	ppm	97
129) 2-Naphthylamine	9.26	143	199175	22.95	ppm	96
130) 1-Naphthylamine	9.13	143	171144	23.46	ppm	100
131) 5-Nitro-o-toluidine	9.60	152	71882	26.98	ppm	90
133) Disulfoton	11.12	88	128065	29.80	ppm	98
134) Dinoseb	11.11	211	45813	25.02	ppm	90
135) Dimethoate	10.53	87	112598	32.56	ppm	96
136) 4-Aminobiphenyl	10.78	169	235735	27.82	ppm	99
137) Methyl parathion	11.72	125	72756	32.16	ppm	94
138) Parathion	12.40	109	54508	32.23	ppm	95
139) Diphenylamine	9.79	169	359118	28.89	ppm	98
140) Isodrin	12.80	193	40318	28.10	ppm	92
141) Diallate	10.27	86	87474	28.51	ppm	73
142) Pentachloronitrobenzene	10.78	295	21952	58.39	ppm	88
143) Pronamide	10.94	173	100092	29.94	ppm	97
144) 4-Nitroquinoline 1-oxide	12.38	190	110076	82.35	ppm	96
145) Methapyriline	12.58	58	123759m	38.09	ppm	
146) sym-Trinitrobenzene	10.26	213	19760	28.14	ppm	92
148) Aramite	14.03	185	18787	49.80	ppm	96
149) p-(Dimethylamine)azobenzen	14.10	120	122485	29.05	ppm	95
150) Kepone	14.72	272	70586m	113.40	ppm	
151) Famphur	14.68	218	571936	171.42	ppm	98
152) 2-Acetylaminofluorene	15.19	181	144339	28.31	ppm	97
153) 3,3'-Dimethylbenzidine	14.74	212	82689	21.18	ppm	96
154) Chlorobenzilate	14.23	251	92240	29.31	ppm	97
156) 4,4-Methylene-bis-(2-chlor	15.75	266	32615	28.79	ppm	96
157) Hexachlorophene	18.05	196	7934	45.28	ppm	95
158) 3-Methylcholanthrene	18.77	252	62323	31.36	ppm	87

9.6.54
9

(#) = qualifier out of range (m) = manual integration (+) = signals summed
 P103294.D MP4524AP9.M Mon Mar 14 14:41:12 2016

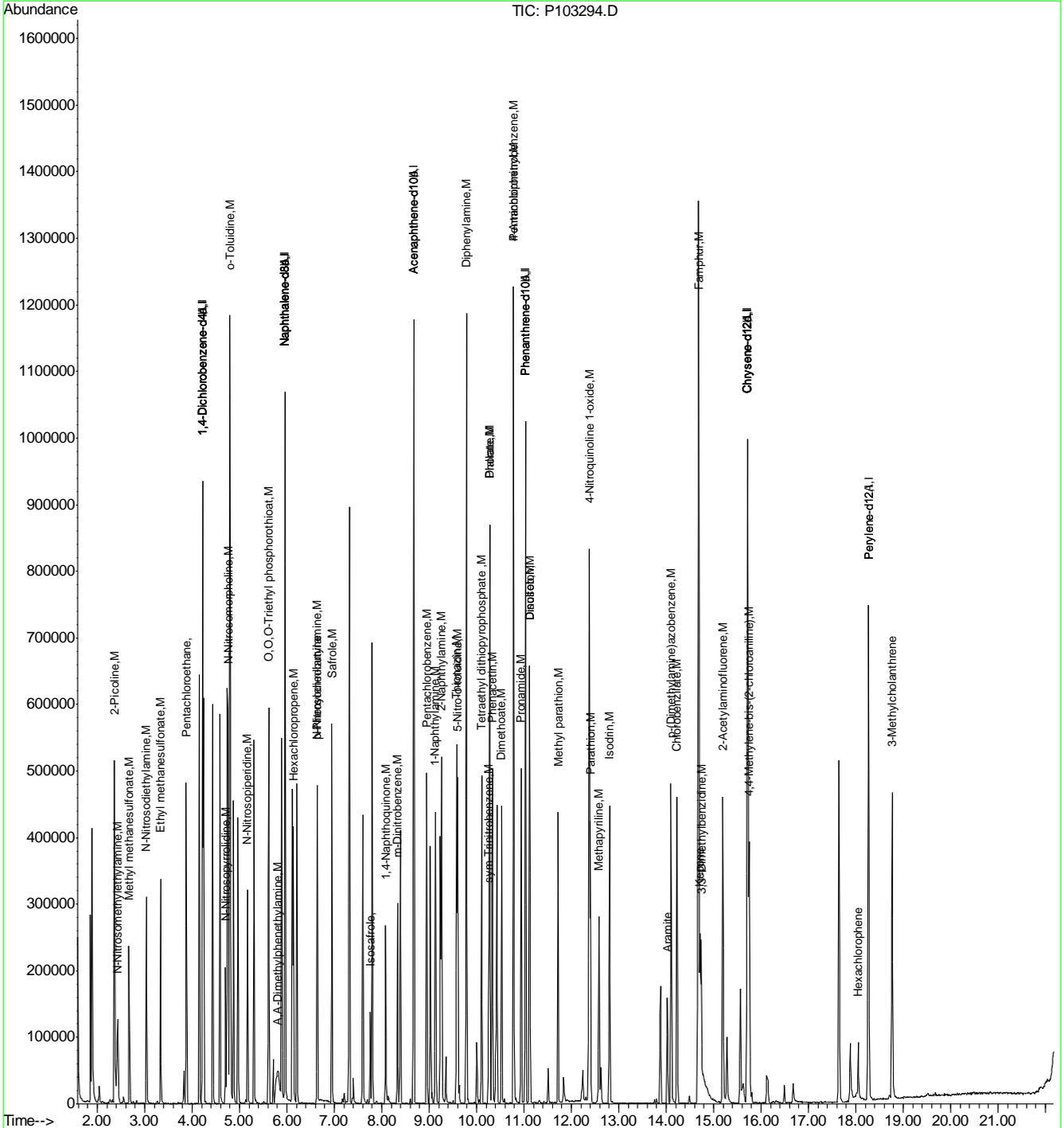
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D
 Acq On : 14 Mar 2016 9:45 am
 Sample : cc4515-25
 Misc : op91862,ep4538
 MS Integration Params: rteint.p
 Quant Time: Mar 14 14:40 2016

Vial: 4
 Operator: linseyk
 Inst : MSP
 Multiplr: 1.00

Quant Results File: MP4524AP9.RES

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EP4538-CC4515 Method: EPA 625
Lab FileID: P103294.D Analyst approved: 03/14/16 14:49 Linsey Kirschmann
Injection Time: 03/14/16 09:45 Supervisor approved: 03/14/16 16:56 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		5.81	Poor instrument integration
Methapyrilene	91-80-5		12.58	Split peak
Kepone	143-50-0		14.72	Poor instrument integration

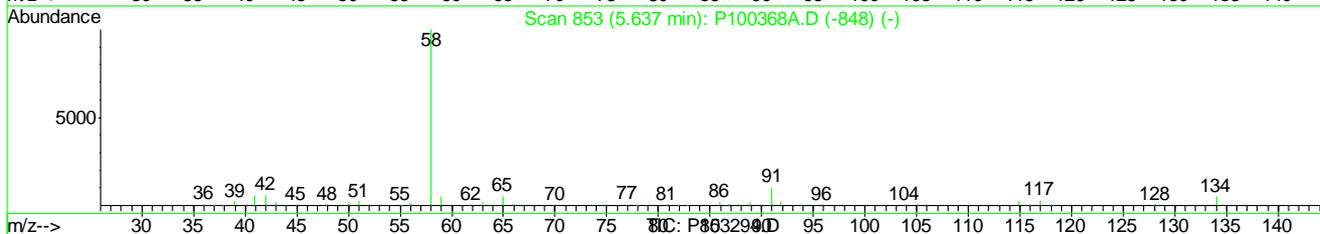
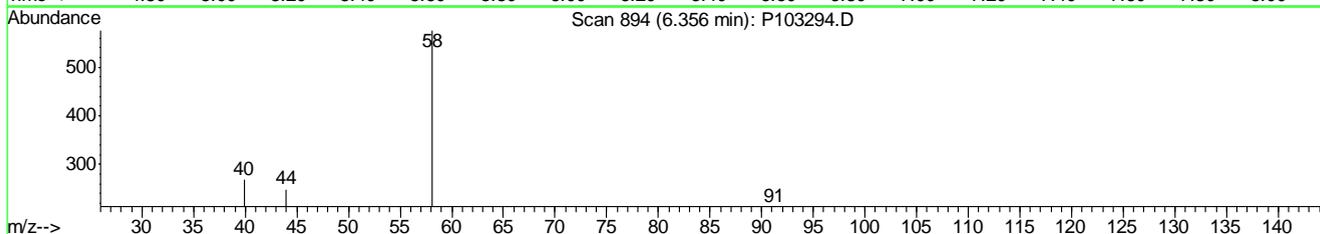
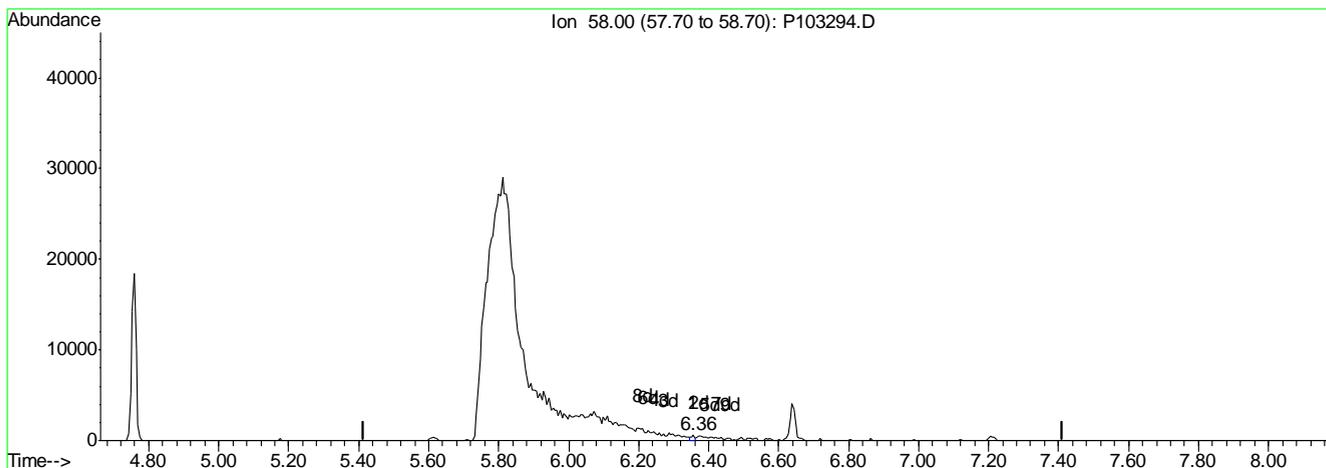
9.6.54.1

9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 14:39 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

6.36min 0.04ppm

response 415

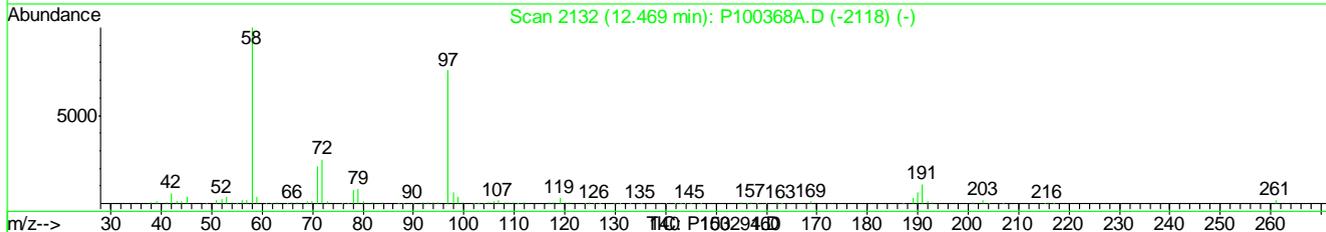
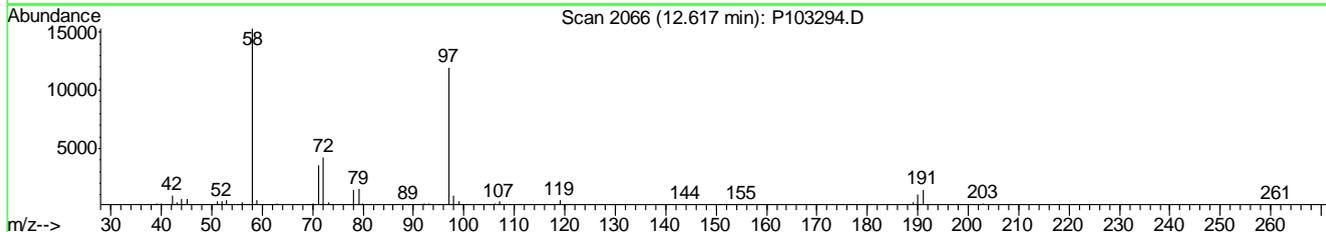
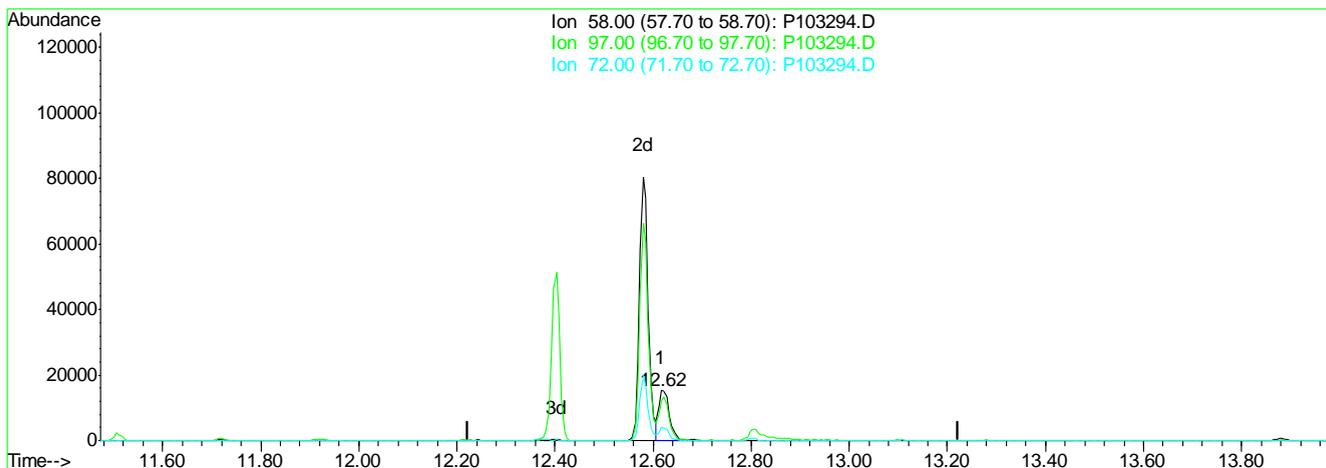
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.54.2
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 14:39 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Multiple Level Calibration



(145) Methapyriline (M)

12.62min 7.13ppm

response 23166

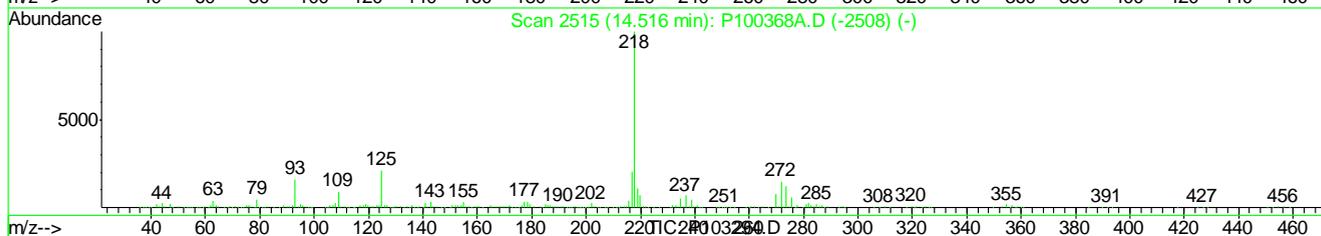
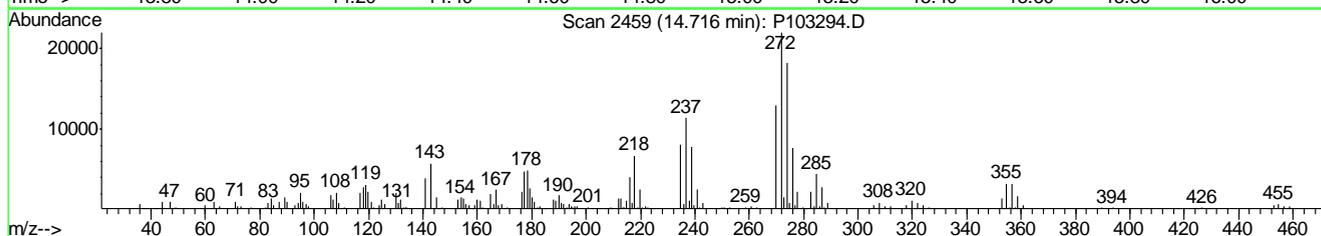
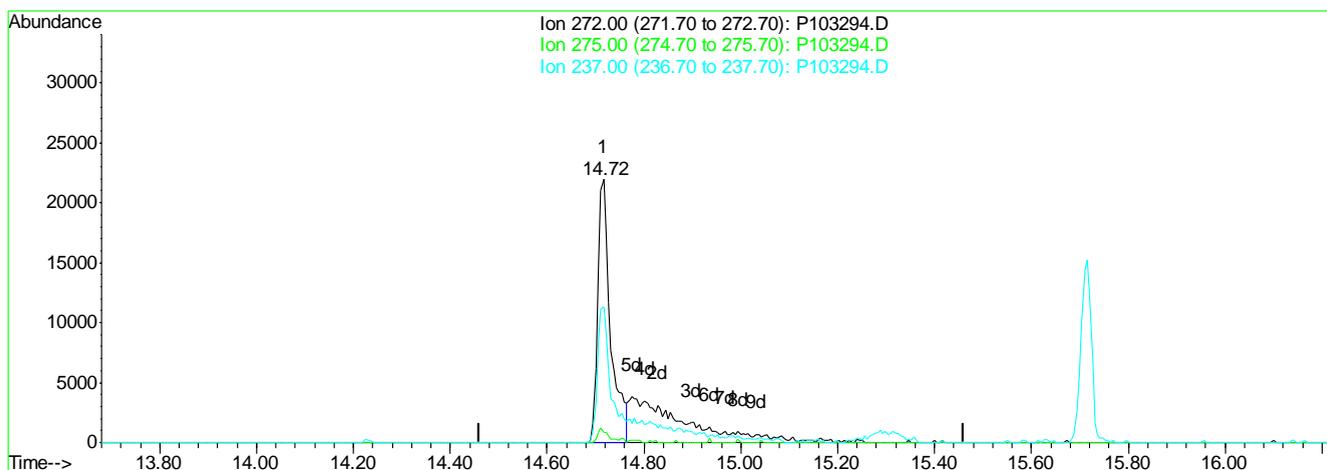
Ion	Exp%	Act%
58.00	100	100
97.00	88.20	76.69
72.00	24.40	27.00
0.00	0.00	0.00

9.6.54.3
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 14:40 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.72min 60.58ppm

response 40892

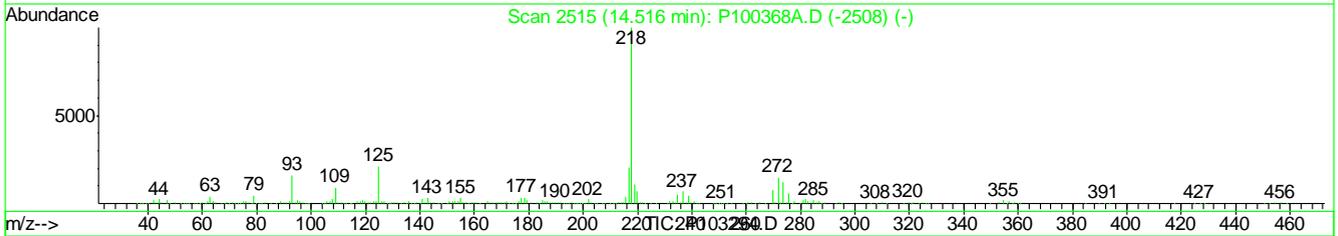
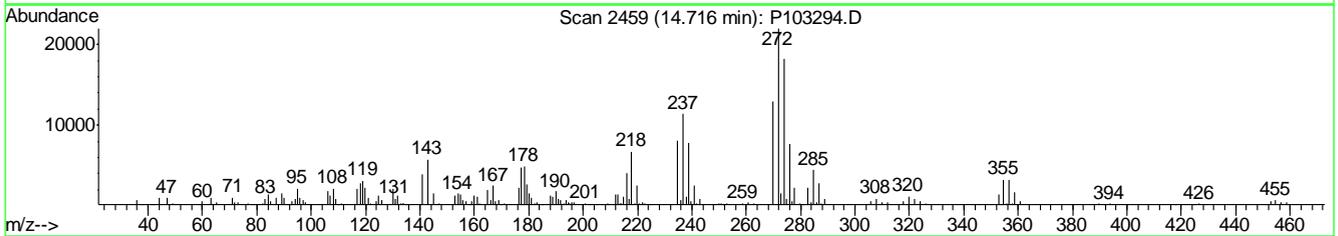
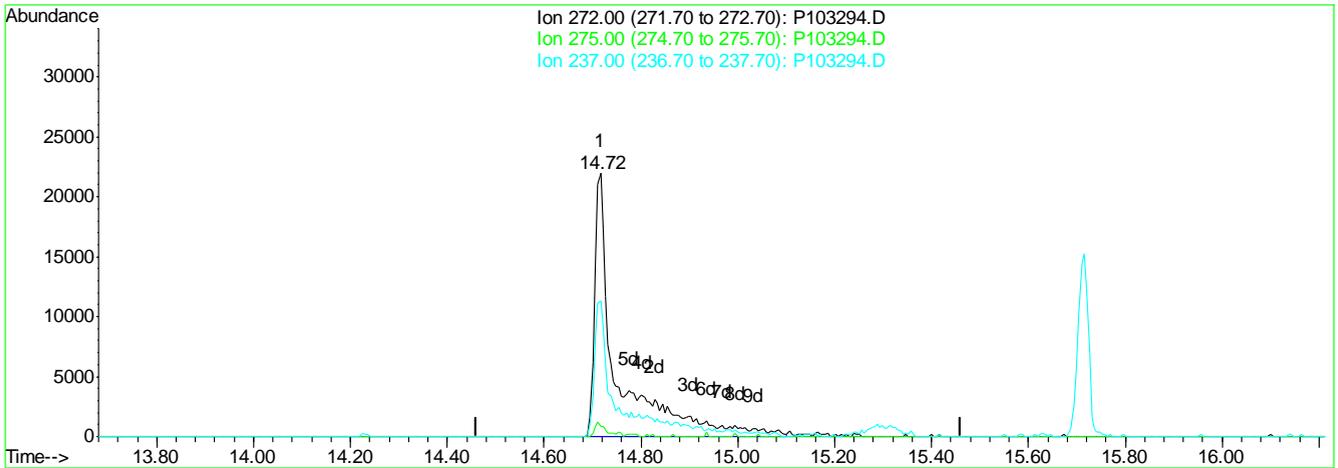
Ion	Exp%	Act%
272.00	100	100
275.00	6.40	3.93
237.00	51.80	51.40
0.00	0.00	0.00

9.6.54.4
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 14:40 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Multiple Level Calibration



(150) Kepone

14.72min 113.40ppm m

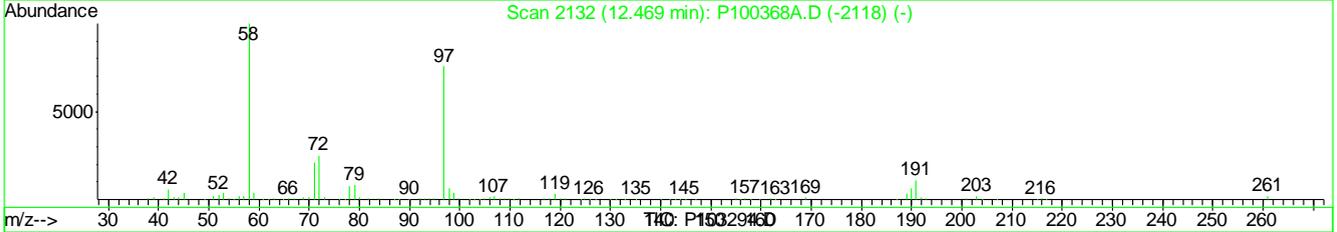
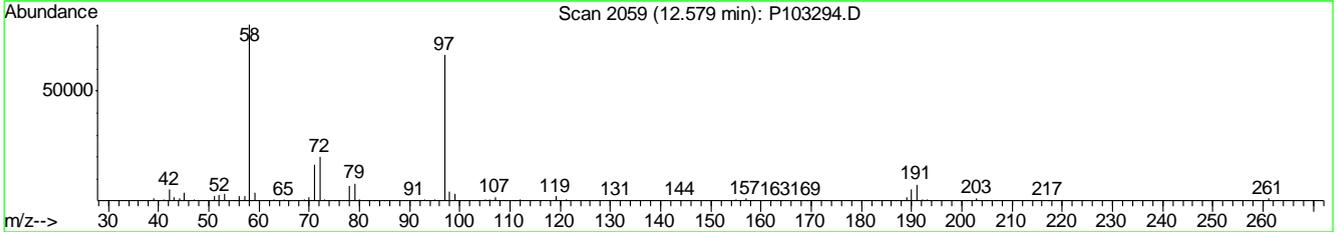
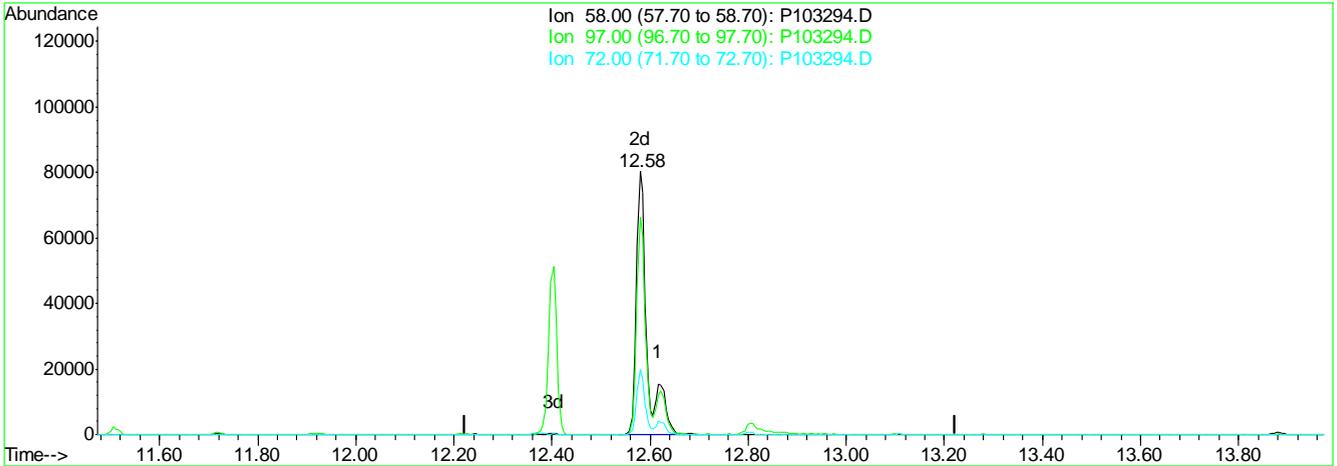
response 70586

Ion	Exp%	Act%
272.00	100	100
275.00	6.40	3.64
237.00	51.80	51.66
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 14:40 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Multiple Level Calibration



(145) Methapyriline (M)

12.58min 38.09ppm m

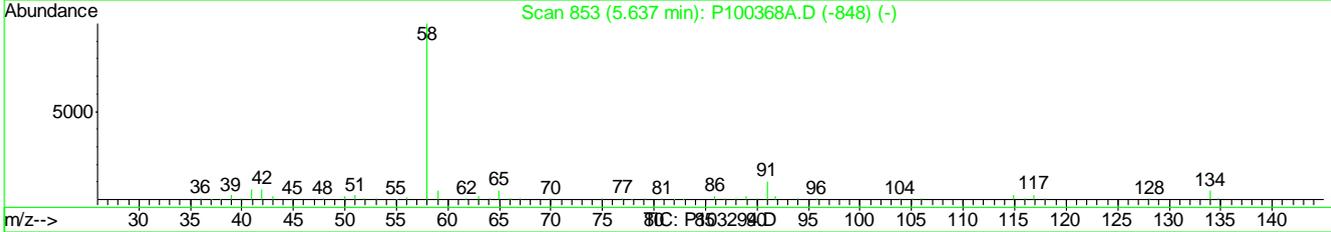
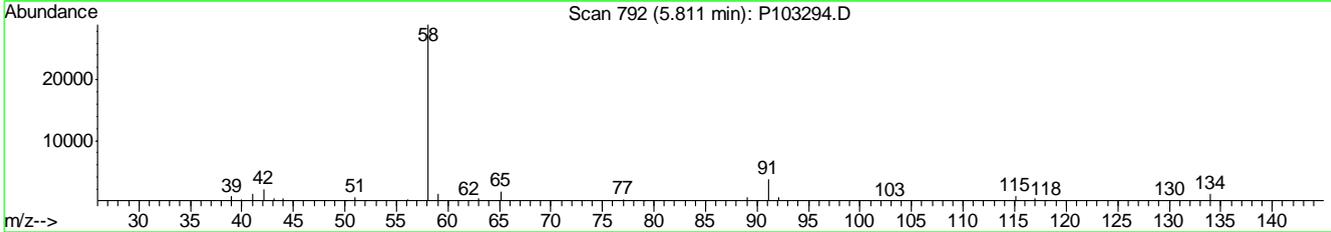
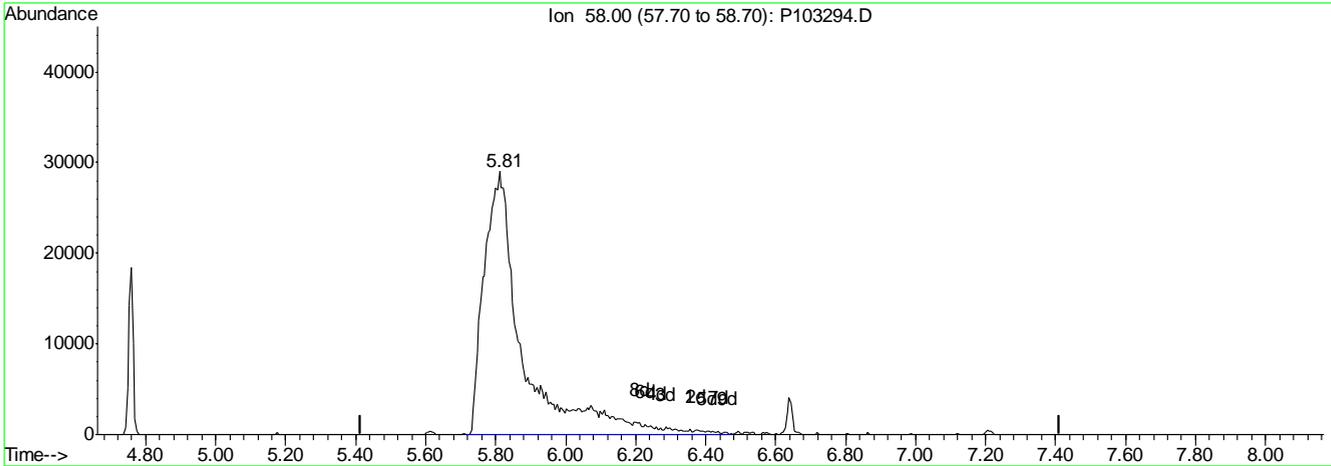
response 123759

Ion	Exp%	Act%
58.00	100	100
97.00	88.20	82.68
72.00	24.40	24.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4538\P103294.D Vial: 4
 Acq On : 14 Mar 2016 9:45 am Operator: linseyk
 Sample : cc4515-25 Inst : MSP
 Misc : op91862,ep4538 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 14 14:40 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 11 14:58:10 2016
 Response via : Multiple Level Calibration



(115) A,A-Dimethylphenethylamine (M)

5.81min 24.04ppm m

response 223071

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.54.7
9

SEMI-VOLATILE by GCMS ANALYSIS LOG

 Batch ID: E4M 2828

 Date: 2/29/16

 Analyst Signature: [Signature]

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
5151829	DFTP	5ppm
-113	SIM STD	1ppm
-124	SIM Internal	400ppm
1160916	CCM-External	-

 Columns: Rx 511M 30m X 25mm KASSEM

 Method: 8200D/025

 Initial Cal. Method: M4M 28K SIM

 Injection Volume: 1.0ul ^{AVMO} 2/29/16

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

 Supervisor Signature: [Signature] Date: 3/1/16

R	Data File	Sample ID	Ext. Batch	Test	M T X	ALS #	Dilutio n.	L +	I S	S U	Status (Data)	Comments
	4M03794	DFTP			W	1					NG	51v reinsert
	03795	DFTP			W	1					↓	51v return
	03796	DFTP			W	1					NG	1:12pm
	03797	CC2816-1.0		BraSim	W	2					↓	bio ↑ Heb, AEB ↓ ^{target volume 11/22/16}
	03798	DFTP			W	1					NG	Abund TEM
	03799	DFTP			W	1					↓	Abund TEM
	03800	DFTP			W	1					OK	3:44pm
	03801	CC2816-1.0 ²⁸¹⁶⁻²⁸¹⁶		BraSim	W	2					networking	recalibrate use at 1st point.
	03802	IC2828-0.5 ²⁸¹⁶			W	3					↓	SV151829-113B
	03803	IC2828-5				4					↓	SV1517
	03804	-2.5				5					↓	run new lot #.
	03805	IC2828-1.0		BraSim	W	2					OK	SV15182742C
	03806	IC2828-0.5				3					OK	D
	03807	IC2828 -2				4					OK	E
	03808	-0.1				5					OK	F
	03809	-0.05				6					OK	G
	03810	-0.02				7					OK	H

M = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

133

All strikeouts must be initialed, dated and reason code applied as follows:

1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05

Rev. Date: 1/16/2006

 9.7.1
9

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4M2828

Date: 2/29/16

Analyst Signature: AWO

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	<u>see page 133</u>	

Columns: PKISS/IN30mmx5mmx5µm
 Method: 800D165
 Initial Cal. Method: M4M2828sim
 Injection Volume: 1µL

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 3/1/16

Data File	Sample ID	Ext. Batch	Test	M T X	ALS #	Dilutio n.	L +	I S	S U	Status (Data)	Comments
<u>4M2811</u>	<u>ic2828-01</u>		<u>BNA sim W</u>		<u>8</u>					<u>OK</u>	<u>SUS187242I</u>
<u>63812</u>	<u>-5</u>				<u>9</u>					<u>OK</u>	<u>A</u>
<u>63813</u>	<u>-2.5</u>				<u>10</u>					<u>OK</u>	<u>B</u>
<u>63814</u>	<u>ICV2828-1.0</u>		<u>BNA sim W</u>		<u>11</u>					<u>OK</u>	<u>OP15162443 1ppm</u>
<u>63815</u>	<u>-1.0</u>		<u>BNA sim W</u>		<u>12</u>					<u>OK</u>	<u>SUS182985 1ppm</u>
<u>63816</u>	<u>-1.0</u>		<u>Acid sim W</u>		<u>13</u>					<u>OK</u>	<u>SUS182727 5ppm</u>

MX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

Strikeouts must be initialed, dated and reason code applied as follows:
 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

135

Form: OR015-05
 Rev: Date: 1/16/2006

9.7.1
9



SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4M2839

Date: 3/14/16

Analyst Signature: [Signature]

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
151024-42	DFPP	5ugpm
53	SIMINTEL	2.5ugpm
160900	Dem-fisher	—

Columns: RX-5S1ms20mx.25mmx.25um

Method 8200/1025

Initial Cal. Method M4M2828sim

Injection Volume: 1ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]

Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	M	ALS	Dilutio n.	L	I	S	Status (Data)	Comments
					T	#		+	S	U		
	4M161038	DFPP			W	1					NG	Abnvd run
	161039	DFPP			W	1					NG	Abnvd run
	161040	DFPP			W	1					OK	9:27AM
	161041	CC2828-05		BASIM	W	2					OK	
	161042	OP91982-MS	91982-1	ABS270	S	3			/	/	OK	
	161043	-MS				4			/	/	OK	
	161044	OP92023-MS	92023-1	ABS270	W	5			/	/	OK	
	161045	-MS				6			/	/	OK	
	161046	OP91855-MS	91855-1	ABS270		7			/	/	OK	
	161047	JC12475-7A	91982-1	ABSIMMS +HCLiox	S	8			/	/	OK	sent for pep lit
	161048	OP91982-MS		ABS270		9			/	/	OK	
	161049	-MS				10			/	/	OK	
	161050	OP92023-MS	92023-1	ABS270	W	11			/	/	OK	
	161051	-MS				12			/	/	OK	
	161052	JC1529+2	91855-1	AMM315163	W	13			/	/	OK	
	161053	JC16021-1	92023-1	ABSIMMS +HCLiox	W	14			/	/	OK	
	161054	-2				15			/	/	OK	

X = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

Strikeouts must be initialed, dated and reason code applied as follows:

1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

m: OR015-05

z: Date: 1/16/2006

175

SEMI-VOLATILE by GCMS ANALYSIS LOG

 Batch ID: E4M2839

 Date: 3/14/16

 Analyst Signature: [Signature]

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	<u>Seep AS</u>	

 Columns: Rxi-5Sims 30m x 25mm x 25um
 Method: 8270 D 1625
 Initial Cal. Method: M4M2828sim
 Injection Volume: 1ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

 Supervisor Signature: ANNO Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	M T X	ALS #	Dilution n.	L +	I S	S U	Status (Data)	Comments
	4m64055	JC16021-3	920231	<u>ANNO-3/16/16</u> <u>ASIMMS</u> <u>H-Hex</u>	W	10					OK	
	64056	JC15916-1		<u>ASIMMS</u> <u>H-Hex</u>		17					OK	<u>run by 8270</u>
	64057	-2				18					OK	<u>run by 8270</u>
	64058	-3				19					OK	
	64059	JC15700-1		<u>ASIMMS</u> <u>H-Hex</u>		20					OK	
	64060	-2				21					OK	
	64061	-3				22					OK	
	64062	-4				23					OK	
	64063	-5				24					OK	<u>8:33pm</u>

ITX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

 Sample volume/weight used and final volumes refer to extraction log. 177

 All strikeouts must be initialed, dated and reason code applied as follows:
 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

 Form: OR015-05
 Rev. Date: 1/16/2006

Batch ID: EP4514

Date: 2/23/2016 ^{SD (2) 2/24/16}

Analyst Signature: SEO

Standard Data

Lot #	Description	Conc.
SW151827-10A	TCL42	100 ppm
-10B		80
-10E		10
-10G		5
-10H		2
-10I		1

Standard Data

Lot #	Description	Conc.
SW151827-10B	DFTPP	50 ppm
SW151829-101A	TCL42	50 ppm
-107B	↓	25 ppm
CM-5732	CM-5732 I Std	4000 ppm
160168	External S	

Columns: Rxi-5silms 30m x .25mm x .25um

Method 8270 D/625

Initial Cal. Method MP4513

Injection Volume: 1 ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 2/29/16

Data File	Sample ID	Ext. Batch	Test	M T X	ALS #	Dilutio n.	L +	I S	S U	Status (Data)	Comments
P102786	DFTPP			W	1					OK	1:55 am
102787	ICL4514-100		TCL42	W	10					OK	
102788	-80				11					OK	
102789	-10				12					OK	
102790	-5				13					OK	
102791	-2				14					OK	
102792	-1				15					OK	
102793	-25				16					OK	
102794	ICL4514-50				17					OK	
102795	ICV4513-50		Acids		18					OK	SW151829-128 low 1/6/2016
102796	-50		Aniline		19					OK	-129
102797	-50		ABW SURP		20					OK	OP15762442
102798	-50		BNA		21					OK	SW151827-26
102799	-50		BN2		22					OK	SW151829-116
102800	ICV4514-50		HQ		23					OK	-64D
102801	-50		Benzidine ^{3rd}		24					OK	-88C 8:58 am

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

sample volume/weight used and final volumes refer to extraction log.

123

11 strikeouts must be initialed, dated and reason code applied as follows:

= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
v. Date: 1/16/2006

9.7.3 9

Batch ID: EP4515

Date: 2/24/16

Analyst Signature: [Signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
S151829100	DFPP	500ppm
015732	Internal Std	400ppm
110168	DM-Fisher	-

Columns: RN-5silms 2um X 25mm W/25um

Method 8270 D/025

Initial Cal. Method MP4513

Injection Volume: 1ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 2/25/16

R	Data File	Sample ID	Ext. Batch	Test	M T X	ALS #	Dilutio n.	L +	I S	S U	Status (Data)	Comments
	P102802	DFPP				W 1					d	10:01AM
	102803	IC4515-100		AP9		W 2					d	SV151829-118A
	102804	-50				3					d	-118B
	102805	IC4515-50				4					d	-118C
	102806	IC4515-25				5					d	-118D
	102807	-10				6					d	-118E
	102808	-5				7					d	-118F
	102809	-2				8					d	-118H
	102810	-1				9					d	-118I
	102811	IC4515-50		AP9 2nd		10					d	OP151504-54
	102812	IC4515-50		AP9 3rd		11					d	SV151829-122A
	102813	IC4515-50		AP9 meq/mix		12					d	SV151829-108
	102814	IC4515-50		Supernatant		13					d	SV151709-35
	102815	IC4515-50		O-TDI		14					Not needed	OP151504-48

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Suffrogate.

Sample volume/weight used and final volumes refer to extraction log.

125

All strikeouts must be initialed, dated and reason code applied as follows:

1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
Rev. Date: 1/16/2006

SEMI-VOLATILE by GCMS ANALYSIS LOG

 Batch ID: EP4524

 Date: 3/2/16

 Analyst Signature: [Signature]

Lot #	Description	Conc.
SV151829-134A	BNA	100
-134B		80
-134E		10
-134F		5
-134G		2
-134H		1

Lot #	Description	Conc.
SV151829-108	DFTPP	50 ppm
SV151827-30A	BNA	50 ppm
-30B	↓	25 ppm
CM-5732	Integral Std	4000 ppm
160906	DCM (Fisher)	

 Columns: Rxi Ssilmms3mmx.25mmx.25um

 Method: 8200D1025

 Initial Cal. Method: MP4513²⁴ K3216

 Injection Volume: 1ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

 Supervisor Signature: [Signature]

 Date: 3/3/16

Data File	Sample ID	Ext. Batch	Test	M T X	ALS #	Dilutio n.	L +	I S	S U	Status (Data)	Comments
P102097	DFTPP			W	1					NG	127↑ reinspect
102098	DFTPP			W	1					↓	127↑ reinspect
102099	DFTPP			W	1					NG	127↑ reinspect
103000	DFTPP			W	1					↓	127↑ reinspect K3216
103001	DFTPP			W	1					↓	127↑ reinspect
103002	DFTPP			W	1					NG	127↑ reinspect
103003	DFTPP			W	1					NG	12:38pm
103004	CC451350		BNA	W	2					↓	reinspect reinspect
103005	DFTPP			W	1					NG	127↑ reinspect
103006	DFTPP			W	1					↓	127↑ reinspect
103007	DFTPP			W	1					NG	127 ↑, reinspect
103008	DFTPP			W	1					↓	127 ↑, reinspect
103009	DFTPP			W	1					↓	127 ↑, reinspect
103010	DFTPP			W	1					OK	
103011	ic4524-100		BNA		2					OK	
103012	-80				3					OK	
103013	-10				4					OK	

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

151

All strikeouts must be initialed, dated and reason code applied as follows:

= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

 Form: OR015-05
 Rev. Date: 1/16/2006

 9.7.5
 9



SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EP4524

Date: 3/2/2016

Analyst Signature: SED

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 151	

Columns: Rxi-5 30m x 0.25mm x 25mm

Method 8270 D/625

Initial Cal. Method MP4524

Injection Volume: 1 ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: AMC

Date: 3/3/16

R	Data File	Sample ID	Ext. Batch	Test	M T X	ALS #	Dilutio n.	L +	I S	S U	Status (Data)	Comments
	P103014	ic4524-5		BNA	W	5					OK	
	103015	-2				6					OK	
	103016	-1				7					OK	
	103017	ic4524-25 50				8					OK	
	103018	ic4524-25 ic4524-50				9					OK	
	103019	icv4524-50		Acids		10					OK	SV151829-128
	103020	-50		Aniline		11					OK	-114
	103021	-50		ABU surr		12					OK	OP15162442
	103022	-50		BN1		13					OK	SV151827-26
	103023	-50		BN2		14					OK	-2
	103024	-50		Benzidine 3 rd		15					OK	-38 F

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

sample volume/weight used and final volumes refer to extraction log.

Il strikeouts must be initialed, dated and reason code applied as follows:

= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05

Rev. Date: 1/16/2006

Batch ID EP4538

Print Analyst Name: Linsley K.

Date: 3/14/16

Analyst Signature: [Signature]

Standard Data		
Lot #	Description	Conc.
SV15182418	AP9	25ppm

Standard Data		
Lot #	Description	Conc.
SV15182418	DTFP	20ppm
-134	BNA	25ppm
-107	TCLH2	25ppm
CM15232	Internal Std.	400ppm
1109106	DM-Endox	-

Columns: Rx-551MS 20mX.25mmX.25um

Method 8230D/625

Initial Cal. Method MP4524

Injection Volume: 1ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: ANNO

Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilutio n.	L +	I S	S U	Status (Data)	Comments
	P1032911	DTFP				W1					OK	8:33AM
	1032912	CC4524-25		BNA		W2					OK	4:54 AM
	1032913	CC4524-25		TCLH2		W3					OK	
	1032914	CC4515-25		AP9		W4					OK	
	1032915	CP92023-Mb	92023-1	AP9		5		H	I	S	OK	
	1032916	-151				6					OK	
	1032917	-153				7					OK	
	1032918	JC16021-1		AP9		8		H	I	S	OK	
	1032919	-2				9		H	I	S	OK	
	103300	-3				10		H	I	S	OK	
	103301	JC15716-1		AP9		11					OK	
	103302	-2				12					OK	SENT FOR
	103303	-3				13					OK	
	103304	JC15716-1		AP9		14		H	I	S	OK	
	103305	-2				15		H	I	S	OK	
	103306	-3				16		H	I	S	OK	
	103307	-4				17		H	I	S	OK	

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error
Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-07
Rev. Date: 1/19/16

Batch ID EP4538

Print Analyst Name: L. Jensen

Date: 3/14/16

Analyst Signature: [Signature]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	<u>See pg 1</u>	

Columns: RX-5S1MS30m X.25MMX.25um

Method 8270 D 1625

Initial Cal. Method MP4524

Injection Volume: 1ul

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]

Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L	I	S	SU	Status (Data)	Comments
	P103298	JC15760-5	92023-1	ENSTC2250	W	18		+	/	/	/	OK	
	103299	D800288-1		NOMA + NOMLA		19			/	/	/	OK	
	103300	JC15761-1		2mmrep		20			/	/	/	OK	
	103301	-2				21						NOT run	Method @ run See changed
	103302	-3				22						NOT run	See changed
	103303	-4				23							
	103304	-6				24							
	103305	OP92023-MS		AB5270		25			/	/	/	OK	
	103306	-MSL				26			/	/	/	OK	8:12pm
	103317	OP91858-10	91858-1	AB5270		27			/	/	/	OK	run after P103298
	103318	-MSL				28			/	/	/	OK	
	103319	JC15451-2		3152E, C2 Dncp		29		+	/	/	/	OK	
	103320	OP116171216		MegaMix sphe		30			/	/	/	OK	run after P103299

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

All strikeouts must be initialed, dated, and reason applied if not transcription error
Sample volume/weight used and final volumes refer to extraction log.

Form: OR015-07
Rev. Date: 1/19/16

LOGBOOK ID: 6-1571

ABN Aqueous Extraction Logbook

Extract Method (CHECK OFF "N" / DO NOT CIRCLE):

Separatory Funnel: SW646 350CCL/Plastic

Continuous Liquid Liquid: SW646 352CCL/Plastic

Time Started: 9:00am

Time Finished: 3:00pm

Date Started: 3/12/16

Date Finished: 3/12/16

BATCH# **MS 92023** RACK# **A-5**

Extracted by: **FA**
 Concentrated by: **FA**
 Viald by: **FA**
 Relinquished by: **FA**

Accepted by: **A** **2/11/16**

Supervisor Review:

Equipment Range	ID	Observed Temp (°C)	Corrosion Factor (°C)	Corrected Temp (°C)	Pressure/Flowrate
Buoch (65-71°C)					
Buoch Chiller					
Watersh (70-80°C)	617	74.6	18.5	74.1	NA
Watersh Chiller (°F)	P2	6			2
NEWAP (2-24°C) LPM					

Subrogate: **LOT# 171624136** **CONC (ppm) 50** **AMT (mL) 1**

Witness Sign: **FA**

Matrix Spike	LOT #	CONC (ppm)	AMT (mL)
Acid			
Acid (for SIM)	15182745	30	1.0
Base #1	15152744	50	1
Base #2	15152783	50	1
Amines	15152746	50	1
BSIM	151624132	1	1

Witness Sign: **VP**

Witness Sign	Solvent	LOT #	BRAND	AMT (mL)
	METH CHLOR	158253	Fisher	6/60
	REAGENT			
	NaOH	158803	Fisher	
	H2SO4	251167	Fisher	
	Sodium Sulfate	158169	Fisher	
	Glass Wool	09929-2	Lab	
	Filter Paper			
	pl. strip	212113	Hygon	

Sample #	Sample Description	Sample Bottle #	Analysis Type	Final Extract	Misc.
BS13	DI H2O	4	ABN	Color	
JC15796-1	DI H2O	2	MSD	Color	
JC15796-2	DI H2O	2	MSD	Color	
JC15796-3	DI H2O	2	MSD	Color	
JC15796-4	DI H2O	2	MSD	Color	
JC15796-5	DI H2O	2	MSD	Color	
JC15796-6	DI H2O	2	MSD	Color	
JC15796-7	DI H2O	2	MSD	Color	
JC15796-8	DI H2O	2	MSD	Color	
JC15796-9	DI H2O	2	MSD	Color	
JC15796-10	DI H2O	2	MSD	Color	
JC15796-11	DI H2O	2	MSD	Color	
JC15796-12	DI H2O	2	MSD	Color	
JC15796-13	DI H2O	2	MSD	Color	
JC15796-14	DI H2O	2	MSD	Color	
JC15796-15	DI H2O	2	MSD	Color	
JC15796-16	DI H2O	2	MSD	Color	
JC15796-17	DI H2O	2	MSD	Color	
JC15796-18	DI H2O	2	MSD	Color	
JC15796-19	DI H2O	2	MSD	Color	
JC15796-20	DI H2O	2	MSD	Color	

Witness Sign: **FA**

Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason: **0.6 to 1.4m out of HT**

Spiking: **BS13-AP9**

Weights/Volumes: **JC15796-1 (MS/MSD x SIM BS13/AP9)**

Required MS/MSD: **JC15796-1 (MS/MSD x SIM BS13/AP9)**

Final Volume: **3/11/16**

Other:

Comments: **Line 17: Written corrected**

SGS ACQUATEST INC.
 Form: OPO22A-08
 Rev Date: 1/13/16

49

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**
- **GC Identification Summaries (Hits)**
- **Surrogate Recovery Summaries**
- **GC Surrogate Retention Time Summaries**
- **Initial and Continuing Calibration Summaries**

Method Blank Summary

Job Number: JC15796

Account: AMANYWP Anderson, Mulholland & Associates

Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5211-MB1	GH103775.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples:

Method: SW846-8015C (DAI)

JC15796-1, JC15796-2

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Limits	
111-27-3	Hexanol	99%	56-145%
111-27-3	Hexanol	96%	56-145%

Method Blank Summary

Job Number: JC15796

Account: AMANYWP Anderson, Mulholland & Associates

Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5211-MB2	GH103785.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples:

Method: SW846-8015C (DAI)

JC15796-3, JC15796-4

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Limits	
111-27-3	Hexanol	96%	56-145%
111-27-3	Hexanol	90%	56-145%

Blank Spike Summary

Job Number: JC15796

Account: AMANYWP Anderson, Mulholland & Associates

Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5211-BS	GH103776.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples:

Method: SW846-8015C (DAI)

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	4970	99	74-123
78-83-1	Isobutyl Alcohol	5000	4740	95	70-124
67-63-0	Isopropyl Alcohol	5000	4450	89	76-121
71-23-8	n-Propyl Alcohol	5000	4680	94	73-122
71-36-3	n-Butyl Alcohol	5000	4390	88	67-116
78-92-2	sec-Butyl Alcohol	5000	4470	89	74-118
67-56-1	Methanol	5000	3360	67	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	98%	56-145%
111-27-3	Hexanol	90%	56-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15796-1MS	GH103778.D	1	03/17/16	XPL	n/a	n/a	GGH5211
JC15796-1MSD	GH103779.D	1	03/17/16	XPL	n/a	n/a	GGH5211
JC15796-1	GH103777.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples:

Method: SW846-8015C (DAI)

JC15796-1, JC15796-2, JC15796-3, JC15796-4

CAS No.	Compound	JC15796-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	ND	5000	5200	104	5000	5310	106	2	58-145/27
78-83-1	Isobutyl Alcohol	ND	5000	5290	106	5000	5230	105	1	69-131/25
67-63-0	Isopropyl Alcohol	ND	5000	5300	106	5000	5330	107	1	70-133/28
71-23-8	n-Propyl Alcohol	ND	5000	5290	106	5000	5020	100	5	66-137/29
71-36-3	n-Butyl Alcohol	ND	5000	4850	97	5000	4750	95	2	63-131/25
78-92-2	sec-Butyl Alcohol	ND	5000	5270	105	5000	5190	104	2	64-136/25
67-56-1	Methanol	ND	5000	4940	99	5000	5040	101	2	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC15796-1	Limits
111-27-3	Hexanol	100%	96%	93%	56-145%
111-27-3	Hexanol	91%	90%	86%	56-145%

10.3.1
10

* = Outside of Control Limits.

GC Identification Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std: GGH5211-CC5193	Injection Date: 03/17/16
Lab File ID: GH103784.D	Injection Time: 13:56
Instrument ID: GCGH	Method: SW846-8015C (DAI)

Sample ID: JC15796-3	Injection Date: 03/17/16
Lab File ID: GH103786.D	Injection Time: 14:29
Client ID: EB030716	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Isopropyl Alcohol	1 ^a	2.21	2.21	481		ug/l	3.3
Isopropyl Alcohol	2	1.22	1.22	497		ug/l	

(a) Final result reported from this column.

10.4.1
10

GC Identification Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	Injection Date:	03/17/16
Lab File ID:	GH103774.D	Injection Time:	10:39
Instrument ID:	GCGH	Method:	SW846-8015C (DAI)

Sample ID:	GGH5211-BS	Injection Date:	03/17/16
Lab File ID:	GH103776.D	Injection Time:	11:08
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.83	1.83	5080		ug/l	2.2
Ethanol	2 ^a	1.00	1.00	4970		ug/l	
Isobutyl Alcohol	1 ^a	3.79	3.79	4740		ug/l	11.3
Isobutyl Alcohol	2	2.65	2.65	5310		ug/l	
Isopropyl Alcohol	1 ^a	2.21	2.21	4450		ug/l	13.6
Isopropyl Alcohol	2	1.22	1.22	5100		ug/l	
n-Propyl Alcohol	1 ^a	2.97	2.97	4680		ug/l	5.2
n-Propyl Alcohol	2	1.74	1.74	4930		ug/l	
n-Butyl Alcohol	1 ^a	4.21	4.21	4390		ug/l	3.4
n-Butyl Alcohol	2	3.14	3.14	4540		ug/l	
sec-Butyl Alcohol	1 ^a	3.40	3.41	4470		ug/l	11.8
sec-Butyl Alcohol	2	2.27	2.27	5030		ug/l	
Methanol	1 ^a	1.40	1.40	3360		ug/l	21.0
Methanol	2	0.78	0.78	4150		ug/l	

(a) QC results reported from this column.

10.4.2 10

GC Identification Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	Injection Date:	03/17/16
Lab File ID:	GH103774.D	Injection Time:	10:39
Instrument ID:	GCGH	Method:	SW846-8015C (DAI)

Sample ID:	JC15796-1MS	Injection Date:	03/17/16
Lab File ID:	GH103778.D	Injection Time:	12:03
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.83	1.83	4570		ug/l	12.9
Ethanol	2 ^a	1.00	1.00	5200		ug/l	
Isobutyl Alcohol	1	3.79	3.79	4950		ug/l	6.6
Isobutyl Alcohol	2 ^a	2.65	2.65	5290		ug/l	
Isopropyl Alcohol	1	2.21	2.21	4540		ug/l	15.4
Isopropyl Alcohol	2 ^a	1.22	1.22	5300		ug/l	
n-Propyl Alcohol	1	2.97	2.97	4640		ug/l	13.1
n-Propyl Alcohol	2 ^a	1.74	1.74	5290		ug/l	
n-Butyl Alcohol	1	4.21	4.21	4830		ug/l	0.4
n-Butyl Alcohol	2 ^a	3.14	3.14	4850		ug/l	
sec-Butyl Alcohol	1	3.40	3.41	4540		ug/l	14.9
sec-Butyl Alcohol	2 ^a	2.28	2.27	5270		ug/l	
Methanol	1	1.40	1.40	4500		ug/l	9.3
Methanol	2 ^a	0.78	0.78	4940		ug/l	

(a) QC results reported from this column.

10.4.3
10

GC Identification Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	Injection Date:	03/17/16
Lab File ID:	GH103774.D	Injection Time:	10:39
Instrument ID:	GCGH	Method:	SW846-8015C (DAI)

Sample ID:	JC15796-1MSD	Injection Date:	03/17/16
Lab File ID:	GH103779.D	Injection Time:	12:17
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.84	1.83	5470		ug/l	3.0
Ethanol	2 ^a	1.00	1.00	5310		ug/l	
Isobutyl Alcohol	1	3.79	3.79	5120		ug/l	2.1
Isobutyl Alcohol	2 ^a	2.65	2.65	5230		ug/l	
Isopropyl Alcohol	1	2.21	2.21	5350		ug/l	0.4
Isopropyl Alcohol	2 ^a	1.22	1.22	5330		ug/l	
n-Propyl Alcohol	1	2.98	2.97	4970		ug/l	1.0
n-Propyl Alcohol	2 ^a	1.73	1.74	5020		ug/l	
n-Butyl Alcohol	1	4.21	4.21	5240		ug/l	9.8
n-Butyl Alcohol	2 ^a	3.13	3.14	4750		ug/l	
sec-Butyl Alcohol	1	3.41	3.41	4860		ug/l	6.6
sec-Butyl Alcohol	2 ^a	2.27	2.27	5190		ug/l	
Methanol	1	1.40	1.40	4700		ug/l	7.0
Methanol	2 ^a	0.78	0.78	5040		ug/l	

(a) QC results reported from this column.

10.4.4
10

Volatile Surrogate Recovery Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Method: SW846-8015C (DAI) Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
JC15796-1	GH103777.D	93	86
JC15796-2	GH103780.D	81	76
JC15796-3	GH103786.D	90	86
JC15796-4	GH103787.D	103	95
GGH5211-BS	GH103776.D	98	90
GGH5211-MB1	GH103775.D	99	96
GGH5211-MB2	GH103785.D	96	90
JC15796-1MS	GH103778.D	100	91
JC15796-1MSD	GH103779.D	96	90

Surrogate Compounds Recovery Limits

S1 = Hexanol 56-145%

(a) Recovery from GC signal #2

(b) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	Injection Date:	03/17/16
Lab File ID:	GH103774.D	Injection Time:	10:39
Instrument ID:	GCGH	Method:	SW846-8015C (DAI)

	S1 ^a RT	S1 ^b RT
Check Std	5.29	5.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
GGH5211-MB1	GH103775.D	03/17/16	10:54	5.29	5.87
GGH5211-BS	GH103776.D	03/17/16	11:08	5.30	5.87
JC15796-1	GH103777.D	03/17/16	11:48	5.29	5.87
JC15796-1MS	GH103778.D	03/17/16	12:03	5.30	5.87
JC15796-1MSD	GH103779.D	03/17/16	12:17	5.29	5.87
JC15796-2	GH103780.D	03/17/16	12:32	5.30	5.87
ZZZZZZ	GH103781.D	03/17/16	12:46	5.29	5.87
ZZZZZZ	GH103782.D	03/17/16	13:03	5.29	5.87
ZZZZZZ	GH103783.D	03/17/16	13:20	5.29	5.87

Surrogate
Compounds

S1 = Hexanol

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

10.6.1
10

GC Surrogate Retention Time Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	Injection Date:	03/17/16
Lab File ID:	GH103784.D	Injection Time:	13:56
Instrument ID:	GCGH	Method:	SW846-8015C (DAI)

	S1 ^a RT	S1 ^b RT
Check Std	5.29	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
GGH5211-MB2	GH103785.D	03/17/16	14:11	5.29	5.87
JC15796-3	GH103786.D	03/17/16	14:29	5.29	5.86
JC15796-4	GH103787.D	03/17/16	14:44	5.29	5.87
ZZZZZZ	GH103788.D	03/17/16	14:58	5.29	5.87
ZZZZZZ	GH103789.D	03/17/16	15:13	5.29	5.87
ZZZZZZ	GH103790.D	03/17/16	15:27	5.29	5.87

Surrogate
Compounds

S1 = Hexanol

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

10.6.2
10

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: GGH5193-ICC5193
 Lab FileID: GH103541.D

Response Factor Report GCGH

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 12:10:59 2016
 Response via : Initial Calibration

Calibration Files

0.5 =GH103543.D 1 =GH103536.D 5 =GH103541.D 10 =GH103538.D
 50 =GH103539.D 100 =GH103540.D 0.1 =GH103544.D =

Compound	0.5	1	5	10	50	100	0.1	Avg	%RSD
1) Methanol	1.426	1.841	1.852	1.703	1.663	1.780	1.952	1.745	E1 9.79
2) Ethanol	2.194	2.249	2.373	2.356	2.184	2.349	2.002	2.244	E1 5.89
3) Tert-Butyl A	2.774	3.753	3.616	3.510	3.237	3.492	3.482	3.409	E1 9.40
4) 1-Propanol	2.092	3.059	3.087	2.991	2.821	3.030	3.265	2.907	E1 13.16
5) 2-Propanol	1.682	2.949	2.637	2.504	2.346	2.529	2.559	2.458	E1 15.80
6) Propionitril									
7) Isobutanol	2.896	3.485	3.556	3.505	3.219	3.484	3.542	3.384	E1 7.18
8) 1-Butanol	2.743	3.627	3.420	3.389	3.054	3.265	3.899	3.343	E1 11.25
9) 2-Butanol	2.347	3.176	3.154	3.122	2.873	3.066	3.756	3.071	E1 13.64
10) Hexanol	1.693	1.305	1.255	1.265	1.256	0.953	1.202	1.275	E2 17.09

Signal #2

1) Methanol	1.818	1.614	1.723	1.711	1.573	1.708	2.010	1.736	E1 8.31
2) Ethanol	2.024	2.267	2.294	2.284	2.092	2.288	2.194	2.206	E1 4.91
3) Tert-Butyl A	2.906	3.370	3.219	3.317	3.054	3.303	3.221	3.198	E1 5.13
4) 1-Propanol	2.365	2.891	3.042	2.928	2.683	2.894	3.320	2.875	E1 10.31
5) 2-Propanol	2.053	2.413	2.353	2.406	2.218	2.413	2.475	2.333	E1 6.33
6) Propionitril									
7) Isobutanol	2.864	3.107	3.214	3.374	3.059	3.290	3.670	3.226	E1 7.97
8) 1-Butanol	** This compound does not meet initial calibration criteria.								
	3.431	3.074	3.191	3.268	2.937	3.245	5.688	3.548	E1 26.96
9) 2-Butanol	2.452	2.996	2.918	2.985	2.721	2.924	3.049	2.864	E1 7.31
10) Hexanol	1.783	1.289	1.223	1.238	1.230	0.945	1.219	1.275	E2 19.65

(#) = Out of Range ### Number of calibration levels exceeded format ###

MGH5193.M

Tue Mar 01 12:19:45 2016

GCGH

10.7.1
10

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: GGH5193-ICV5193
 Lab FileID: GH103545.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
 Acq On : 29 Feb 2016 1:20 pm Operator: XULIU
 Sample : ICV5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
 Acq On : 29 Feb 2016 1:36 pm Operator: XULIU
 Sample : ICV5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 12:10:59 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	17.453	17.951	-2.9	97	0.00	1.33- 1.50
2	Ethanol	22.440	23.663	-5.5	100	0.00	1.80- 1.89
3	Tert-Butyl Alcohol	34.092	35.190	-3.2	97	0.00	2.47- 2.56
4	1-Propanol	29.066	30.968	-6.5	100	0.00	2.96- 3.03
5	2-Propanol	24.580	25.257	-2.8	96	0.00	2.18- 2.27
6	Propionitrile						
7	Isobutanol	33.839	34.562	-2.1	97	0.00	3.76- 3.85
8	1-Butanol	33.426	33.817	-1.2	99	0.00	4.18- 4.27
9	2-Butanol	30.706	31.208	-1.6	99	0.00	3.37- 3.47
10 S	Hexanol	127.542	124.268	2.6	99	0.00	5.85- 5.91

***** Signal #2 *****

1	Methanol	17.364	17.370	-0.0	101	0.00	0.77- 0.83
2	Ethanol	22.062	22.926	-3.9	100	0.00	0.99- 1.05
3	Tert-Butyl Alcohol	31.985	33.340	-4.2	104	0.00	1.44- 1.50
4	1-Propanol	28.748	29.155	-1.4	96	0.00	1.74- 1.80
5	2-Propanol	23.330	24.634	-5.6	105	0.00	1.22- 1.28
6	Propionitrile						
7	Isobutanol	32.255	33.041	-2.4	103	0.00	2.67- 2.73
8	1-Butanol	35.477	32.815	7.5	103	0.00	3.16- 3.22
9	2-Butanol	28.637	29.520	-3.1	101	0.00	2.29- 2.35
10 S	Hexanol	127.519	121.131	5.0	99	0.00	5.29- 5.39

(#) = Out of Range
 GH103541.D MGH5193.M

SPCC's out = 0 CCC's out = 0
 Tue Mar 01 12:26:43 2016 GCGH

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: GGH5211-CC5193
 Lab FileID: GH103774.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID1A.CH Vial: 92
 Acq On : 17 Mar 2016 10:39 am Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID2B.CH Vial: 92
 Acq On : 17 Mar 2016 10:54 am Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 12:10:59 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	17.453	15.660	10.3	85	0.00	1.31- 1.49
2	Ethanol	22.440	22.702	-1.2	96	0.00	1.79- 1.88
3	Tert-Butyl Alcohol	34.092	36.852	-8.1	102	0.00	2.45- 2.54
4	1-Propanol	29.066	31.171	-7.2	101	0.00	2.94- 3.01
5	2-Propanol	24.580	25.641	-4.3	97	0.00	2.17- 2.26
6	Propionitrile						
7	Isobutanol	33.839	36.787	-8.7	103	0.00	3.75- 3.84
8	1-Butanol	33.426	32.720	2.1	96	0.00	4.17- 4.26
9	2-Butanol	30.706	33.330	-8.5	106	0.00	3.36- 3.45
10 S	Hexanol	127.542	122.573	3.9	98	0.00	5.84- 5.90

***** Signal #2 *****

1	Methanol	17.364	15.656	9.8	91	0.00	0.75- 0.81
2	Ethanol	22.062	24.115	-9.3	105	0.00	0.97- 1.03
3	Tert-Butyl Alcohol	31.985	37.406	-16.9	116	0.00	1.40- 1.46
4	1-Propanol	28.748	32.420	-12.8	107	0.00	1.71- 1.77
5	2-Propanol	23.330	26.641	-14.2	113	0.00	1.19- 1.25
6	Propionitrile						
7	Isobutanol	32.255	39.197	-21.5#	122	0.00	2.62- 2.68
8	1-Butanol	35.477	35.472	0.0	111	0.00	3.11- 3.17
9	2-Butanol	28.637	33.141	-15.7	114	0.00	2.24- 2.30
10 S	Hexanol	127.519	129.238	-1.3	106	0.00	5.24- 5.34

(#) = Out of Range
 GH103541.D MGH5193.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 17 13:06:17 2016 GCGH

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: GGH5211-CC5193
 Lab FileID: GH103784.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID1A.CH Vial: 95
 Acq On : 17 Mar 2016 1:56 pm Operator: XULIU
 Sample : CC5193-10000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID2B.CH Vial: 95
 Acq On : 17 Mar 2016 2:11 pm Operator: XULIU
 Sample : CC5193-10000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 12:10:59 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	17.453	15.256	12.6	90	0.00	1.32- 1.49
2	Ethanol	22.440	20.526	8.5	87	0.00	1.79- 1.88
3	Tert-Butyl Alcohol	34.092	31.434	7.8	90	0.00	2.45- 2.54
4	1-Propanol	29.066	28.039	3.5	94	0.00	2.94- 3.01
5	2-Propanol	24.580	21.580	12.2	86	0.00	2.17- 2.26
6	Propionitrile						
7	Isobutanol	33.839	34.781	-2.8	99	0.00	3.74- 3.84
8	1-Butanol	33.426	32.180	3.7	95	0.00	4.16- 4.26
9	2-Butanol	30.706	29.883	2.7	96	0.00	3.36- 3.45
10 S	Hexanol	127.542	125.961	1.2	100	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	15.317	11.8	90	0.00	0.75- 0.81
2	Ethanol	22.062	22.326	-1.2	98	0.00	0.97- 1.03
3	Tert-Butyl Alcohol	31.985	34.045	-6.4	103	0.00	1.40- 1.46
4	1-Propanol	28.748	31.231	-8.6	107	0.00	1.70- 1.76
5	2-Propanol	23.330	24.191	-3.7	101	0.00	1.19- 1.25
6	Propionitrile						
7	Isobutanol	32.255	34.713	-7.6	103	0.00	2.62- 2.68
8	1-Butanol	35.477	32.773	7.6	100	0.00	3.11- 3.17
9	2-Butanol	28.637	29.555	-3.2	99	0.00	2.24- 2.30
10 S	Hexanol	127.519	132.252	-3.7	107	0.00	5.24- 5.34

(#) = Out of Range
 GH103538.D MGH5193.M

SPCC's out = 0 CCC's out = 0
 Fri Mar 18 08:10:02 2016 GCGH

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: GGH5211-CC5193
 Lab FileID: GH103791.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID1A.CH Vial: 95
 Acq On : 17 Mar 2016 4:08 pm Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID2B.CH Vial: 95
 Acq On : 17 Mar 2016 4:23 pm Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
 IntFile : autoint2.e

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 12:10:59 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Methanol	17.453	14.077	19.3	76	0.00	1.32- 1.49
2	Ethanol	22.440	21.445	4.4	90	0.00	1.79- 1.88
3	Tert-Butyl Alcohol	34.092	36.207	-6.2	100	0.00	2.45- 2.54
4	1-Propanol	29.066	32.783	-12.8	106	0.00	2.94- 3.01
5	2-Propanol	24.580	23.529	4.3	89	0.00	2.17- 2.26
6	Propionitrile						
7	Isobutanol	33.839	43.601	-28.8#	123	0.00	3.74- 3.84
8	1-Butanol	33.426	33.021	1.2	97	0.00	4.16- 4.26
9	2-Butanol	30.706	29.296	4.6	93	0.00	3.36- 3.45
10 S	Hexanol	127.542	116.052	9.0	92	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	17.661	-1.7	103	0.00	0.75- 0.81
2	Ethanol	22.062	25.277	-14.6	110	0.00	0.97- 1.03
3	Tert-Butyl Alcohol	31.985	37.300	-16.6	116	0.00	1.40- 1.46
4	1-Propanol	28.748	32.743	-13.9	108	0.00	1.70- 1.76
5	2-Propanol	23.330	27.041	-15.9	115	0.00	1.19- 1.25
6	Propionitrile						
7	Isobutanol	32.255	37.273	-15.6	116	0.00	2.62- 2.68
8	1-Butanol	35.477	37.665	-6.2	118	0.00	3.10- 3.16
9	2-Butanol	28.637	34.006	-18.7	117	0.00	2.24- 2.30
10 S	Hexanol	127.519	126.456	0.8	103	0.00	5.24- 5.34

(#) = Out of Range
 GH103541.D MGH5193.M

SPCC's out = 0 CCC's out = 0
 Fri Mar 18 09:05:29 2016 GCGH

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103777.D\FID1A.CH Vial: 15
 Acq On : 17 Mar 2016 11:48 am Operator: XULIU
 Sample : JC15796-1 Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103777.D\FID2B.CH Vial: 15
 Acq On : 17 Mar 2016 12:03 pm Operator: XULIU
 Sample : JC15796-1 Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 7:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.29	551264	595948	4322.230	4673.394
Spiked Amount	5000.000		Recovery	=	86.44%	93.47%

Target Compounds



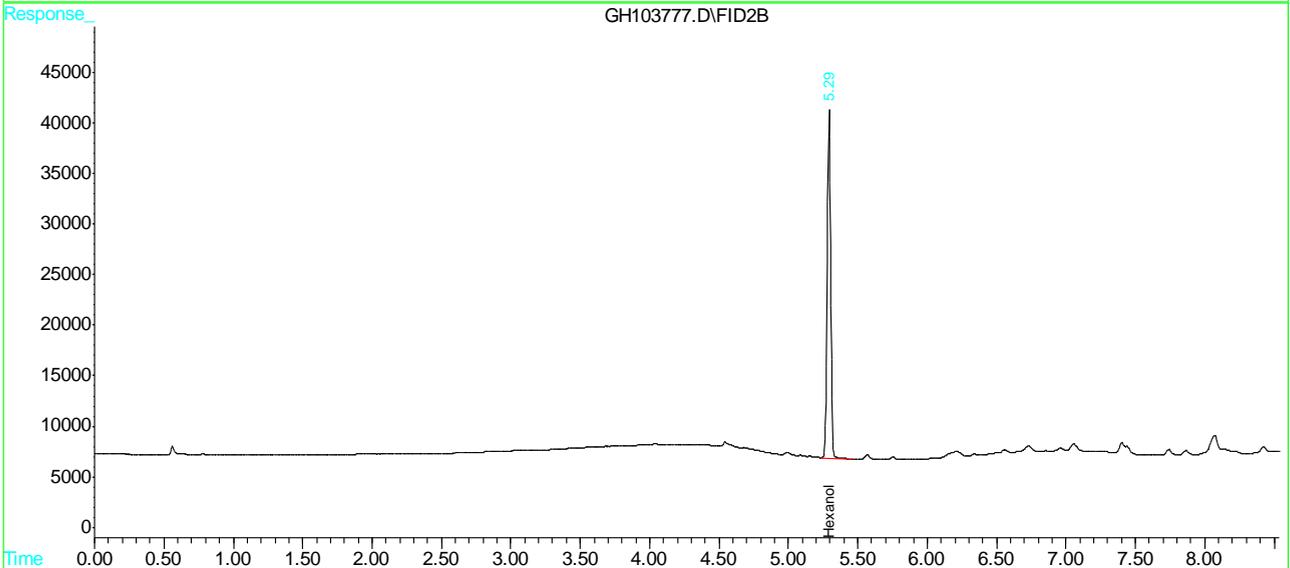
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103777.D\FID1A.CH Vial: 15
Acq On : 17 Mar 2016 11:48 am Operator: XULIU
Sample : JC15796-1 Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103777.D\FID2B.CH Vial: 15
Acq On : 17 Mar 2016 12:03 pm Operator: XULIU
Sample : JC15796-1 Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 7:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:47:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.11
11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103780.D\FID1A.CH Vial: 18
 Acq On : 17 Mar 2016 12:32 pm Operator: XULIU
 Sample : JC15796-2 Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103780.D\FID2B.CH Vial: 18
 Acq On : 17 Mar 2016 12:46 pm Operator: XULIU
 Sample : JC15796-2 Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:00 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.30	483146	519592	3788.141	4074.617
Spiked Amount	5000.000		Recovery	=	75.76%	81.49%

Target Compounds

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103780.D MGH5193.M Fri Mar 18 08:00:30 2016 GCGH

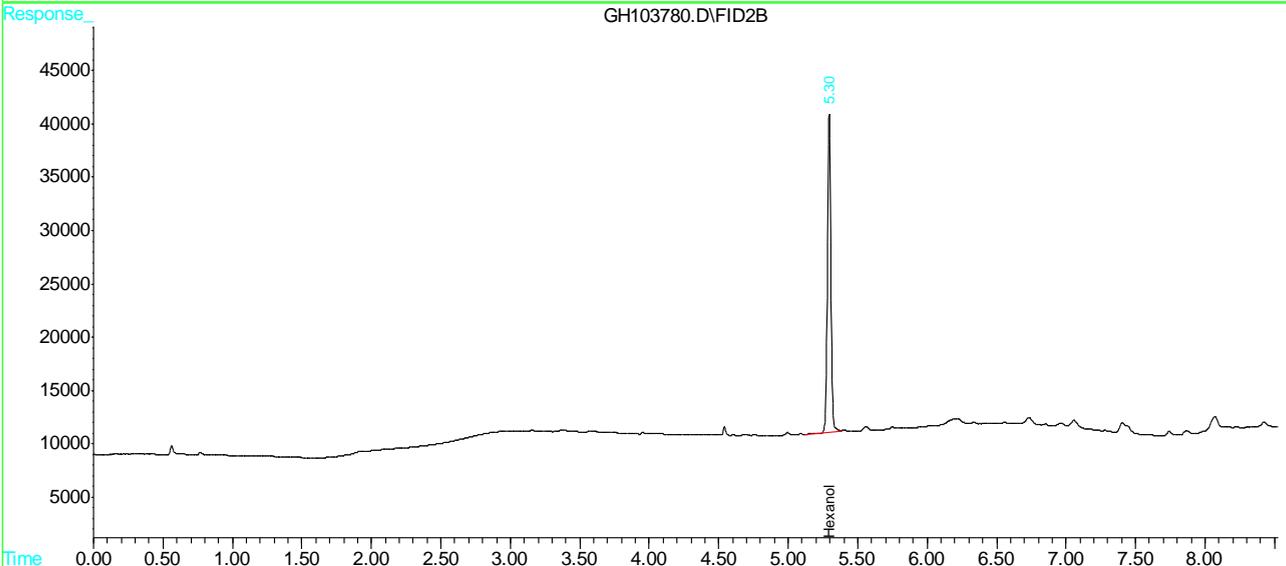
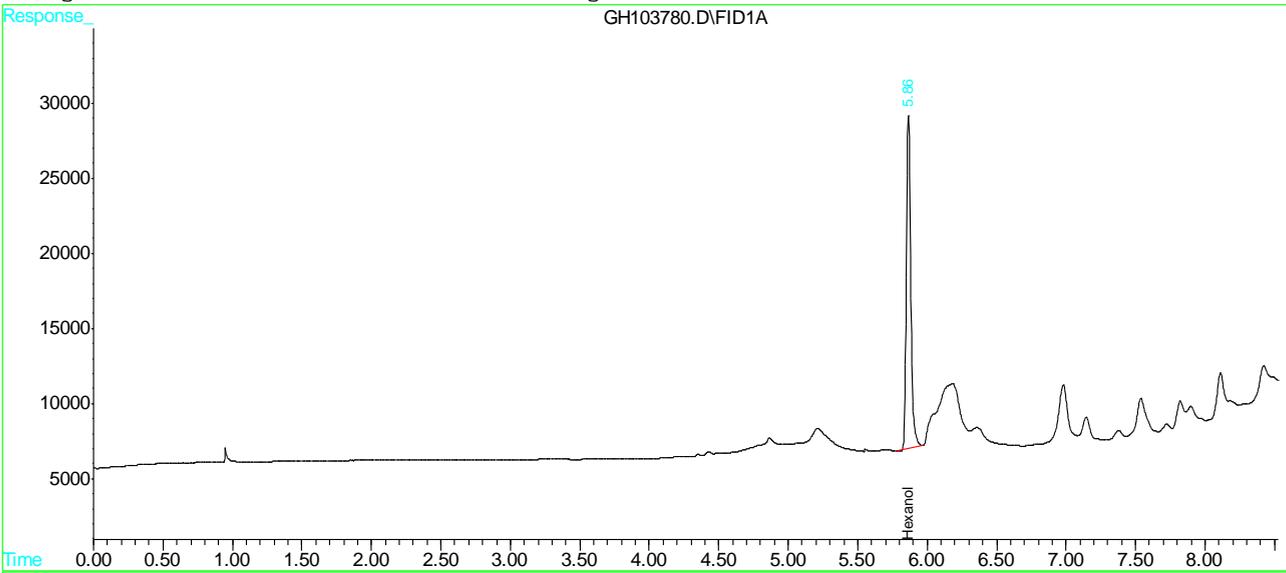
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103780.D\FID1A.CH Vial: 18
 Acq On : 17 Mar 2016 12:32 pm Operator: XULIU
 Sample : JC15796-2 Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103780.D\FID2B.CH Vial: 18
 Acq On : 17 Mar 2016 12:46 pm Operator: XULIU
 Sample : JC15796-2 Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:00 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.12
 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103786.D\FID1A.CH Vial: 25
 Acq On : 17 Mar 2016 2:29 pm Operator: XULIU
 Sample : JC15796-3 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103786.D\FID2B.CH Vial: 25
 Acq On : 17 Mar 2016 2:44 pm Operator: XULIU
 Sample : JC15796-3 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:36 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Fri Mar 18 07:56:55 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.86	5.29	547125	574627	4289.771	4506.198
Spiked Amount	5000.000		Recovery	=	85.80%	90.12%
Target Compounds						
5) 2-Propanol	2.21	1.22	11827	11586	481.171	496.609

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103786.D MGH5193.M Fri Mar 18 08:36:36 2016 GCGH

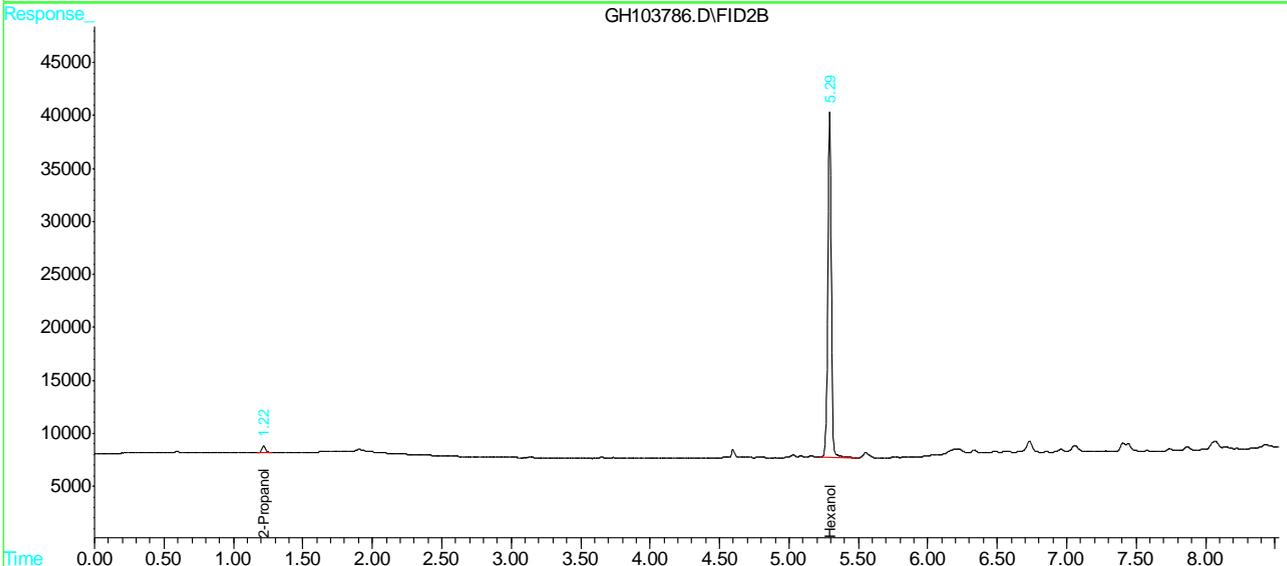
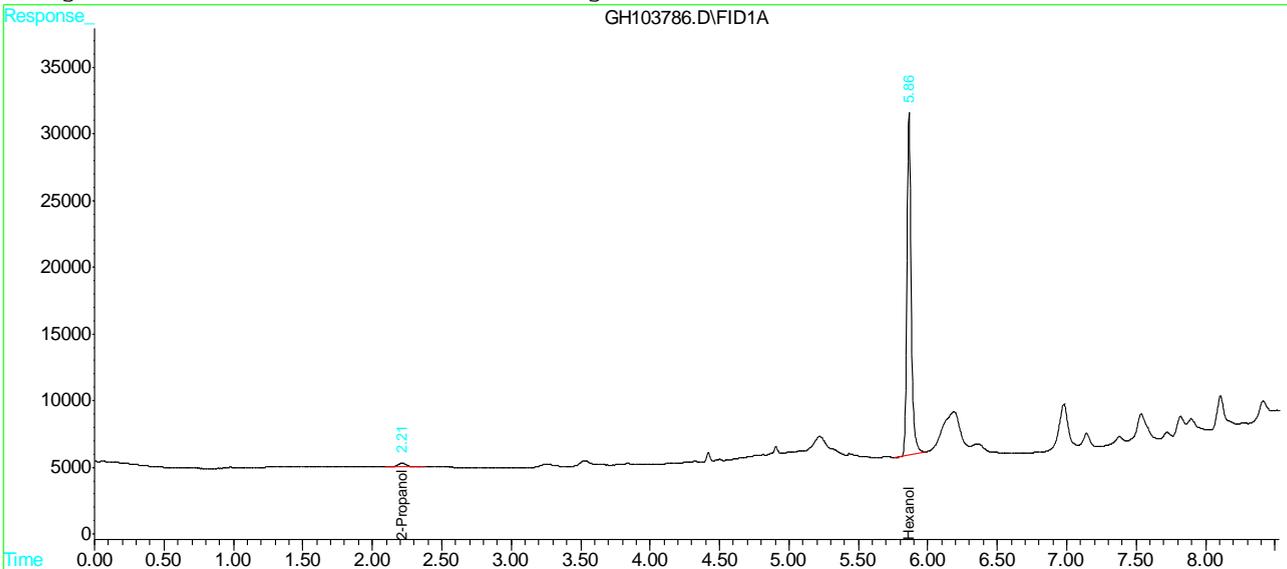
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103786.D\FID1A.CH Vial: 25
 Acq On : 17 Mar 2016 2:29 pm Operator: XULIU
 Sample : JC15796-3 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103786.D\FID2B.CH Vial: 25
 Acq On : 17 Mar 2016 2:44 pm Operator: XULIU
 Sample : JC15796-3 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:36 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Fri Mar 18 07:56:55 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.1.3
 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103787.D\FID1A.CH Vial: 26
 Acq On : 17 Mar 2016 2:44 pm Operator: XULIU
 Sample : JC15796-4 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103787.D\FID2B.CH Vial: 26
 Acq On : 17 Mar 2016 2:58 pm Operator: XULIU
 Sample : JC15796-4 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:36 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Fri Mar 18 07:56:55 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.29	606730	657069	4757.114	5152.703
Spiked Amount	5000.000		Recovery	=	95.14%	103.05%

Target Compounds

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103787.D MGH5193.M Fri Mar 18 08:37:01 2016 GCGH

11.14
 11

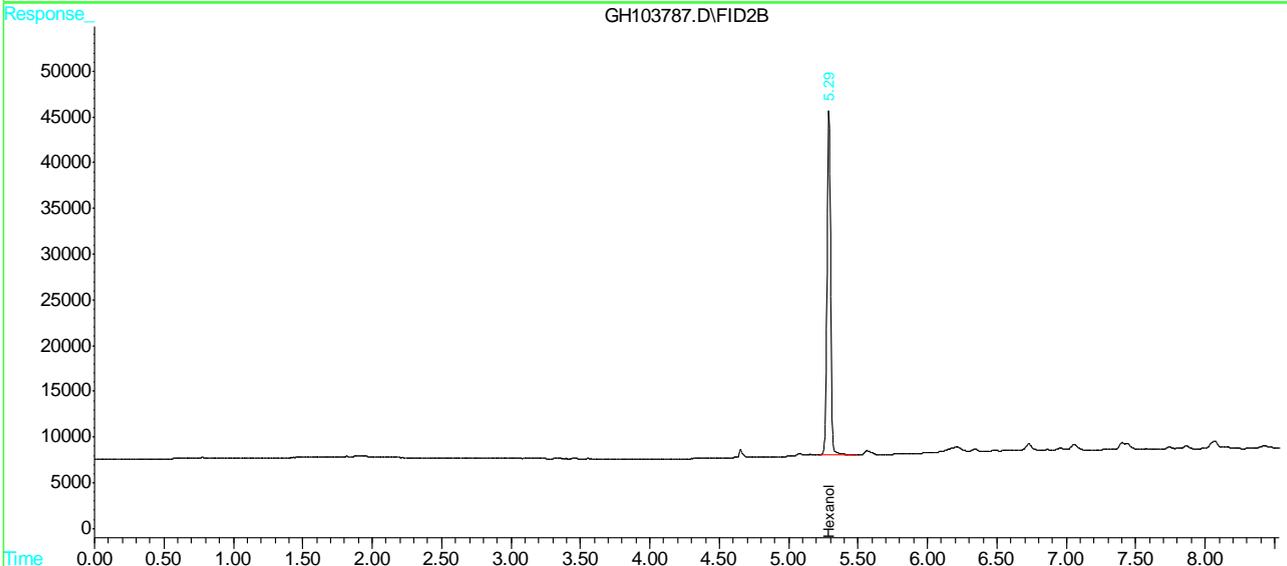
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103787.D\FID1A.CH Vial: 26
Acq On : 17 Mar 2016 2:44 pm Operator: XULIU
Sample : JC15796-4 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103787.D\FID2B.CH Vial: 26
Acq On : 17 Mar 2016 2:58 pm Operator: XULIU
Sample : JC15796-4 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:36 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 18 07:56:55 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.14 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103775.D\FID1A.CH Vial: 93
 Acq On : 17 Mar 2016 10:54 am Operator: XULIU
 Sample : MB1 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103775.D\FID2B.CH Vial: 93
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : MB1 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:52 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:48:46 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.29	610713	628642	4788.340	4929.778
Spiked Amount	5000.000		Recovery	=	95.77%	98.60%

Target Compounds

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103775.D MGH5193.M Thu Mar 17 12:59:33 2016 GCGH

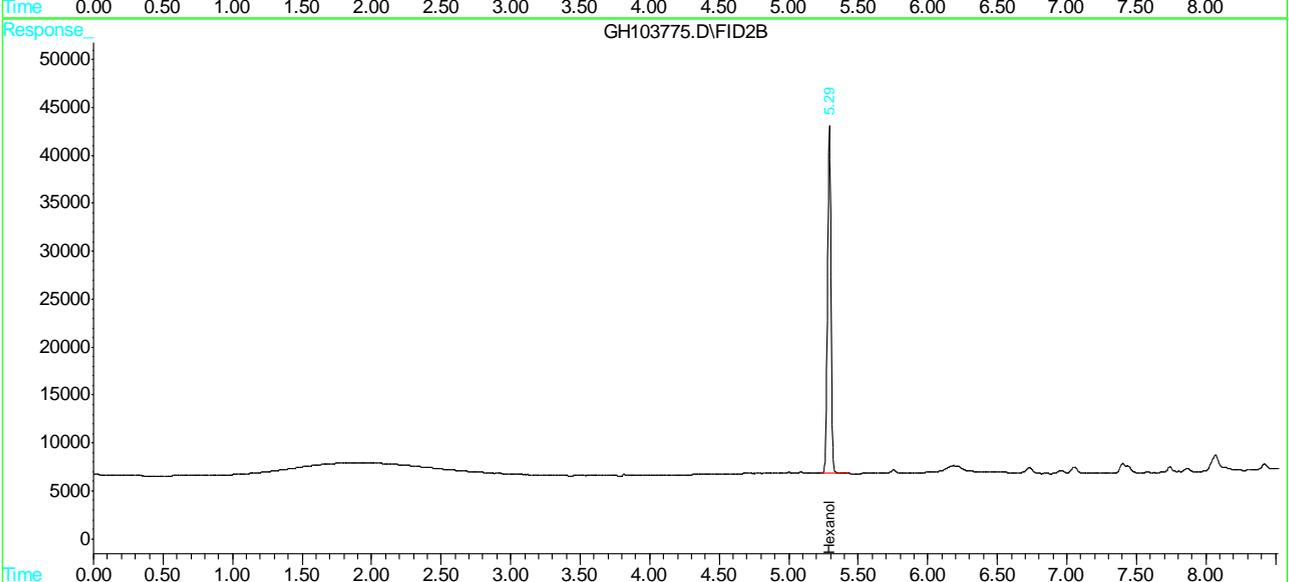
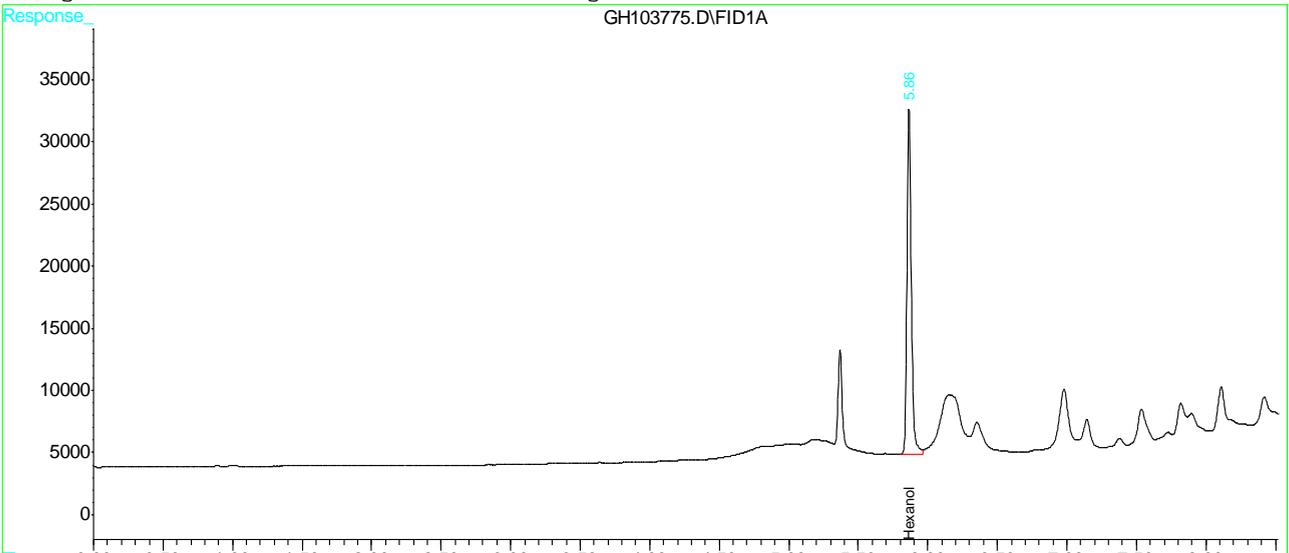
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103775.D\FID1A.CH Vial: 93
 Acq On : 17 Mar 2016 10:54 am Operator: XULIU
 Sample : MB1 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103775.D\FID2B.CH Vial: 93
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : MB1 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:52 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:48:46 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103785.D\FID1A.CH Vial: 91
 Acq On : 17 Mar 2016 2:11 pm Operator: XULIU
 Sample : MB2 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103785.D\FID2B.CH Vial: 91
 Acq On : 17 Mar 2016 2:29 pm Operator: XULIU
 Sample : MB2 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 7:38 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.29	571458	610194	4480.562	4785.110
Spiked Amount	5000.000		Recovery	=	89.61%	95.70%

Target Compounds

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103785.D MGH5193.M Fri Mar 18 08:36:15 2016 GCGH

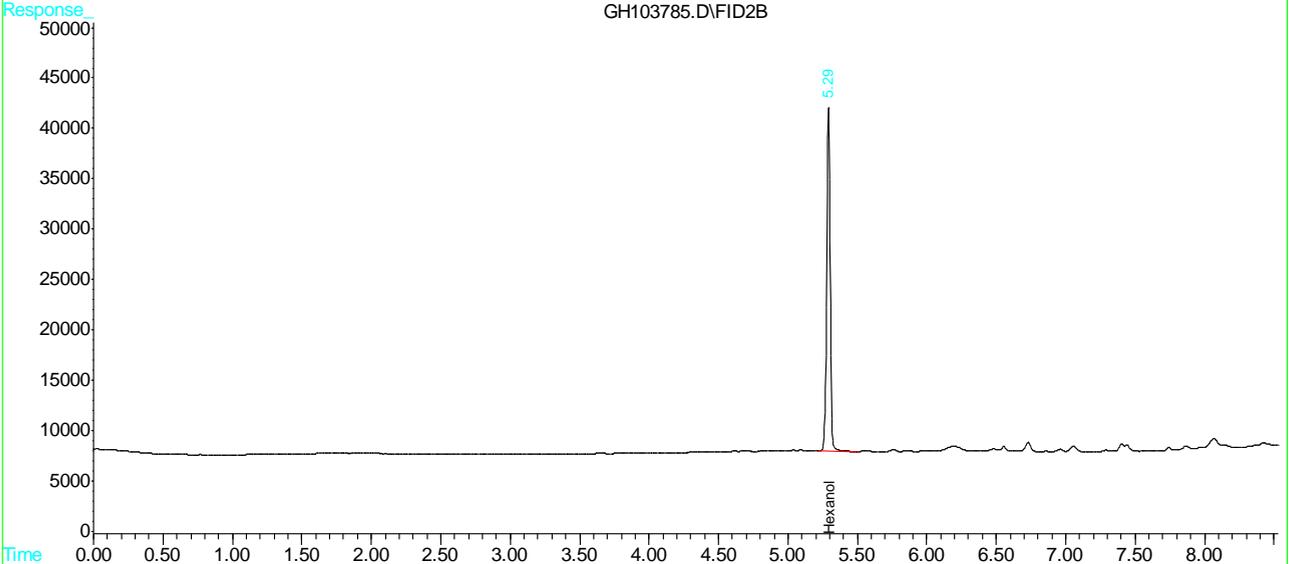
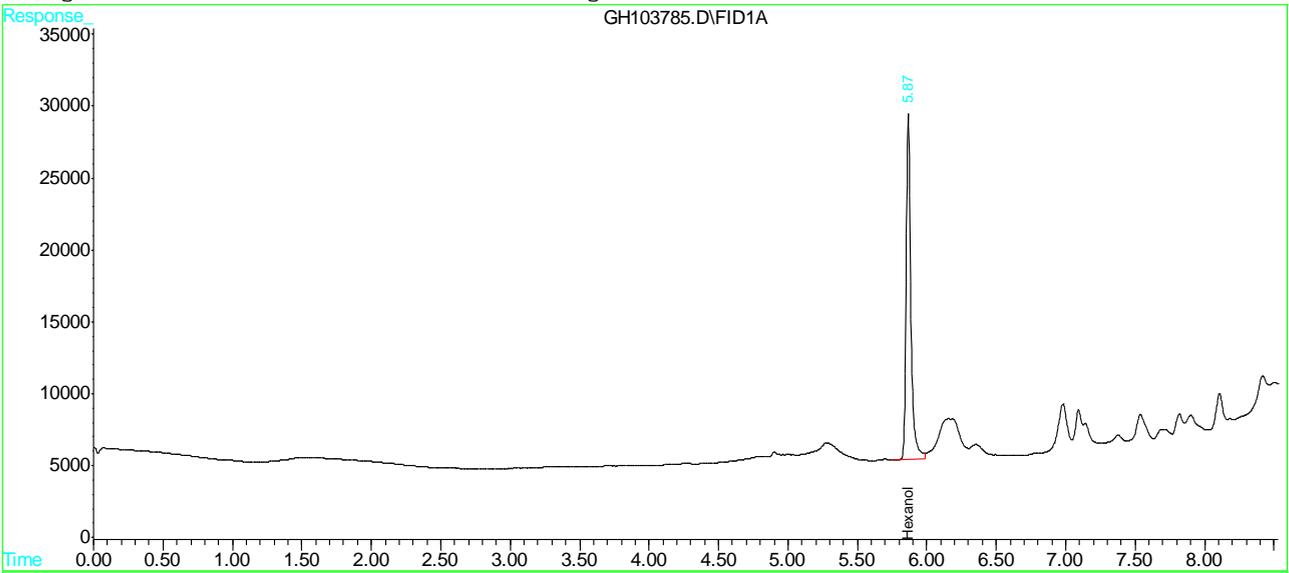
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103785.D\FID1A.CH Vial: 91
 Acq On : 17 Mar 2016 2:11 pm Operator: XULIU
 Sample : MB2 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103785.D\FID2B.CH Vial: 91
 Acq On : 17 Mar 2016 2:29 pm Operator: XULIU
 Sample : MB2 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 7:38 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.22 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH Vial: 94
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH Vial: 94
 Acq On : 17 Mar 2016 11:23 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 13:01 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:55:32 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.30	576512	622119	4520.181	4878.625
Spiked Amount	5000.000		Recovery	=	90.40%	97.57%
Target Compounds						
1) Methanol	1.40	0.78	58590	72090	3357.055m	4151.672
2) Ethanol	1.83	1.00	114105	109673	5084.881m	4971.209
3) Tert-Butyl Alcoh	2.50	1.43	153607	164870	4505.641	5154.645
4) 1-Propanol	2.97	1.74	135918	141739	4676.229	4930.465
5) 2-Propanol	2.21	1.22	109490	118997	4454.459	5100.696
7) Isobutanol	3.79	2.65	160357	171127	4738.784	5305.368
8) 1-Butanol	4.21	3.14	146884	161229	4394.352	4544.630
9) 2-Butanol	3.40	2.27	137254	143932	4469.958	5026.034

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103776.D MGH5193.M Thu Mar 17 13:01:57 2016 GCGH

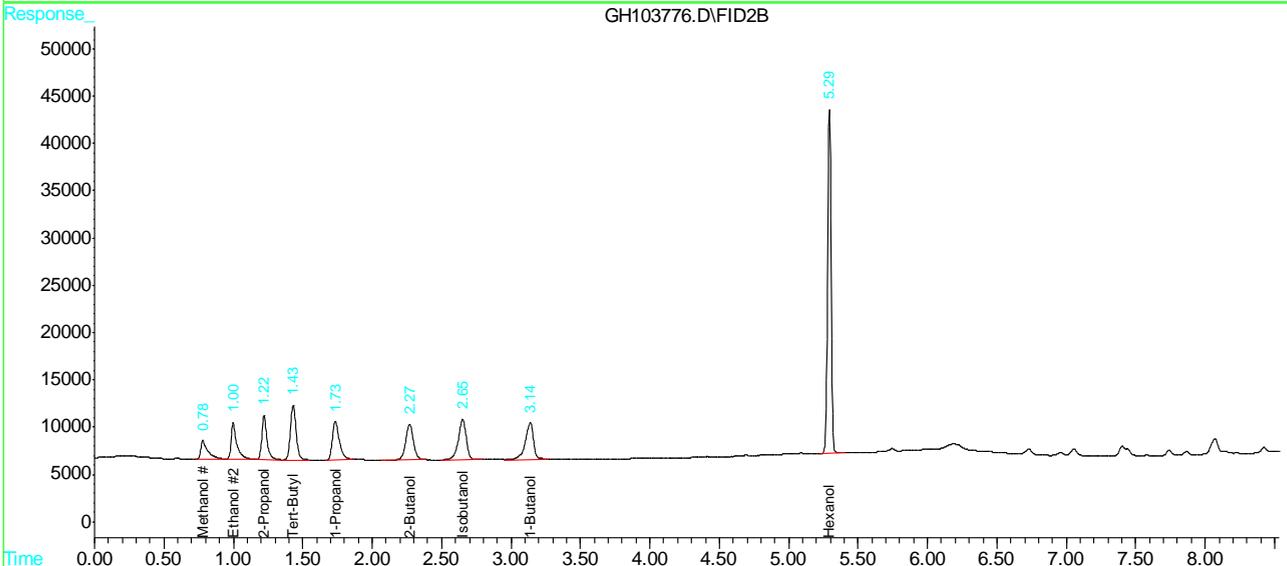
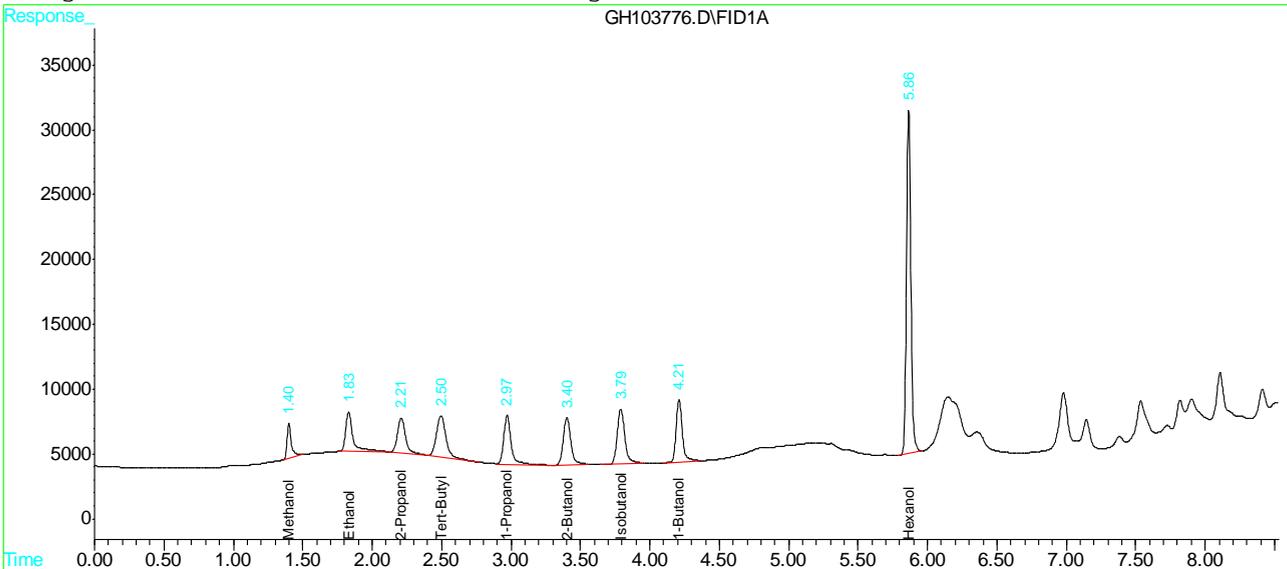
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH Vial: 94
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH Vial: 94
 Acq On : 17 Mar 2016 11:23 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 13:01 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:55:32 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.3.1
 11

Manual Integration Approval Summary

Sample Number: GGH5211-BS Method: SW846-8015C (DAI)
Lab FileID: GH103776.D Analyst approved: 03/18/16 08:52 Xu Liu
Injection Time: 03/17/16 11:08 Supervisor approved: 03/21/16 10:38 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	1	1.40	Poor instrument integration
Ethanol	64-17-5	1	1.83	Poor instrument integration

11.3.1.1

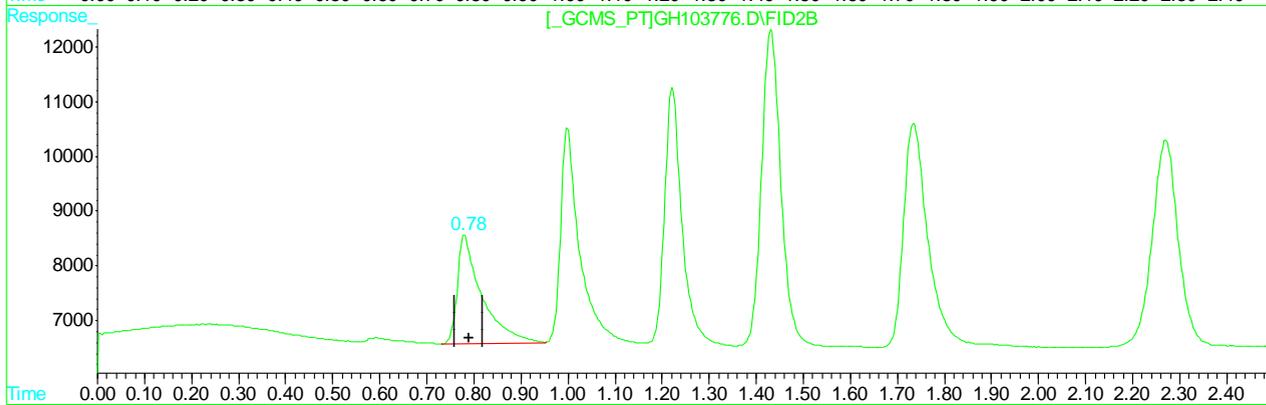
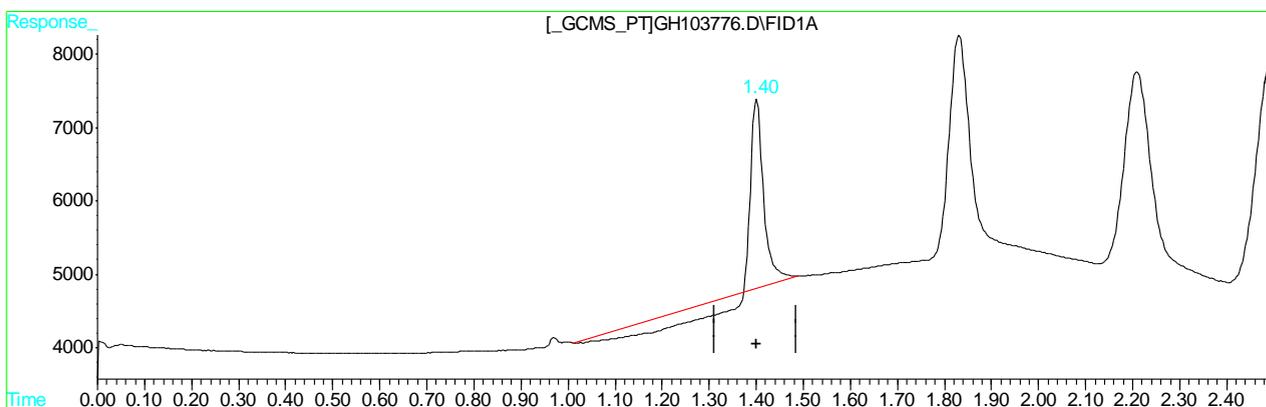
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH Vial: 94
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH Vial: 94
 Acq On : 17 Mar 2016 11:23 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:56 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:55:32 2016
 Response via : Multiple Level Calibration



(1) Methanol
 1.40min 1065.509PPB
 response 18596

(1) Methanol #2
 0.78min 4151.672PPB
 response 72090

(+) = Expected Retention Time

GH103776.D MGH5193.M Thu Mar 17 12:59:52 2016 GCGH

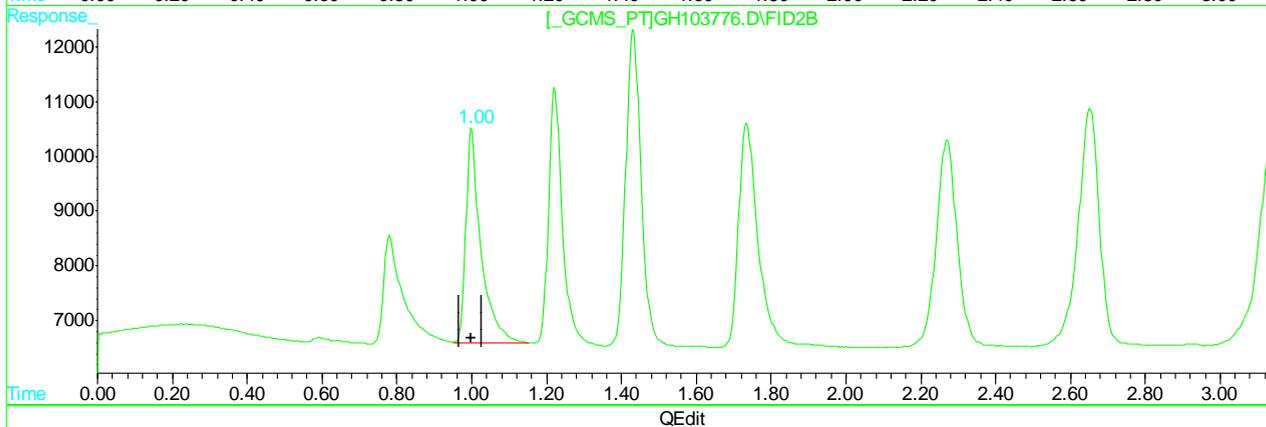
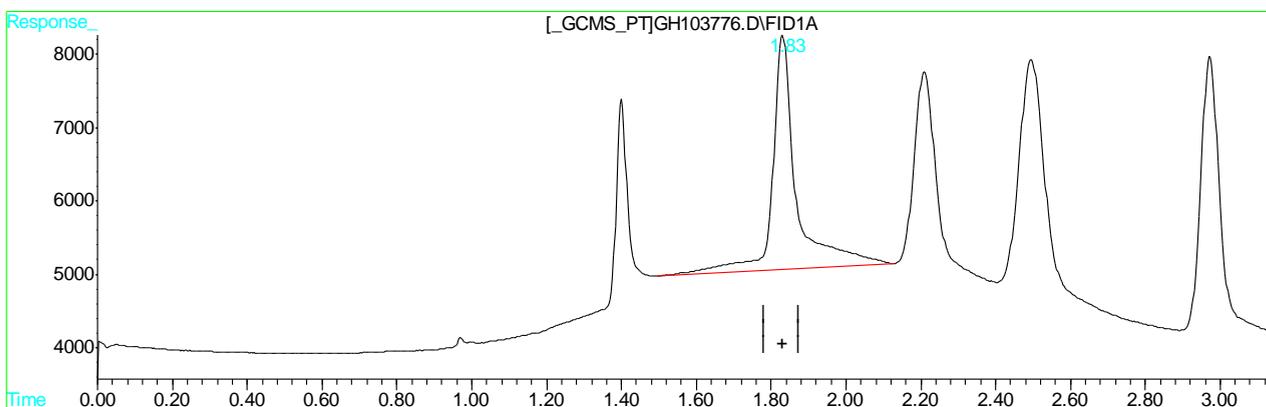
11.3.12
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH Vial: 94
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH Vial: 94
 Acq On : 17 Mar 2016 11:23 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:56 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:55:32 2016
 Response via : Multiple Level Calibration



(2) Ethanol
 1.83min 6321.842PPB
 response 141862

(2) Ethanol #2
 1.00min 4971.209PPB
 response 109673

(+) = Expected Retention Time
 GH103776.D MGH5193.M Thu Mar 17 12:59:58 2016 GCGH

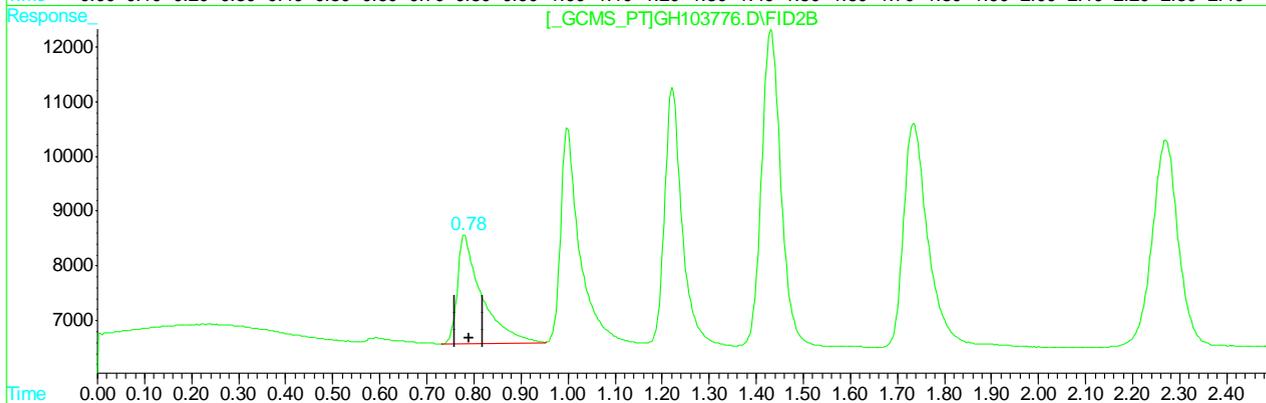
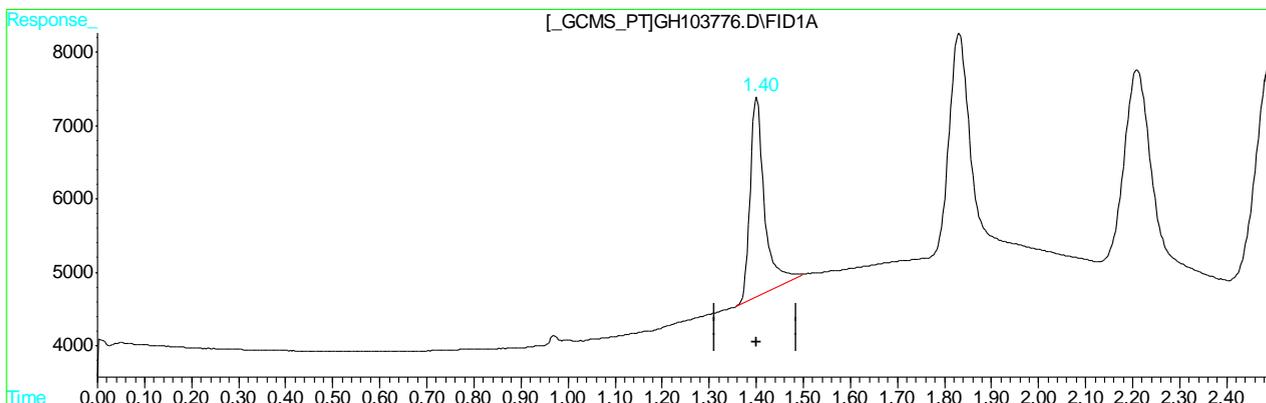
11.3.13
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH Vial: 94
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH Vial: 94
 Acq On : 17 Mar 2016 11:23 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:56 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:55:32 2016
 Response via : Multiple Level Calibration



- (1) Methanol
1.40min 3357.055PPB m
response 58590
- (1) Methanol #2
0.78min 4151.672PPB
response 72090

(+) = Expected Retention Time

GH103776.D MGH5193.M Thu Mar 17 13:01:16 2016 GCGH

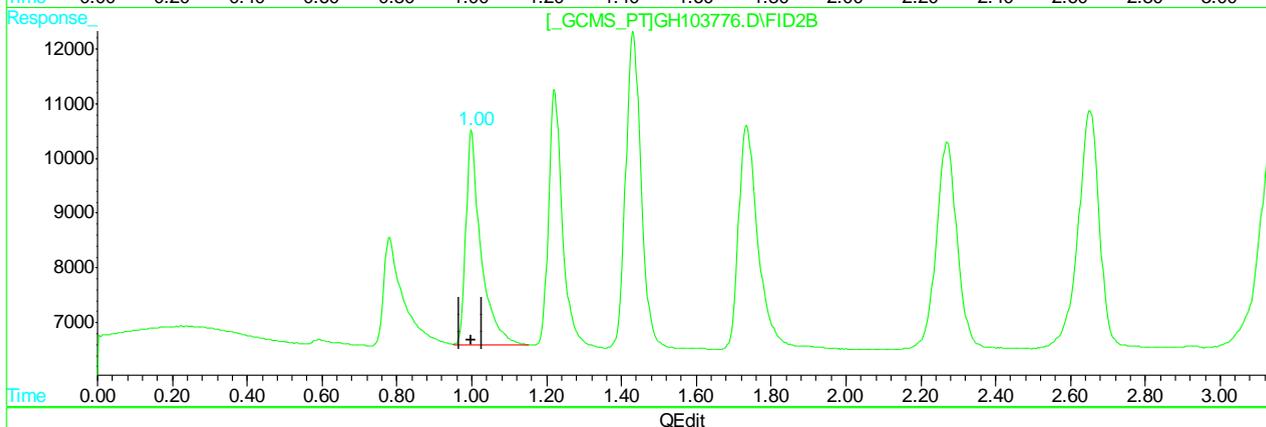
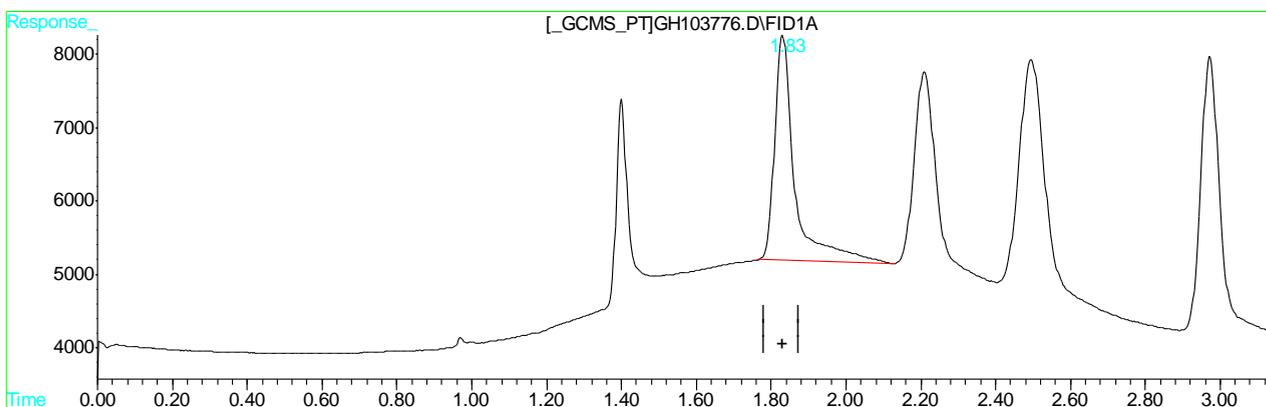
11.3.14
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH Vial: 94
 Acq On : 17 Mar 2016 11:08 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH Vial: 94
 Acq On : 17 Mar 2016 11:23 am Operator: XULIU
 Sample : BS Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:56 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:55:32 2016
 Response via : Multiple Level Calibration



(2) Ethanol
 1.83min 5084.881PPB m
 response 114105

(2) Ethanol #2
 1.00min 4971.209PPB
 response 109673

(+) = Expected Retention Time
 GH103776.D MGH5193.M Thu Mar 17 13:01:49 2016 GCGH

11.3.15
 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103778.D\FID1A.CH Vial: 16
 Acq On : 17 Mar 2016 12:03 pm Operator: XULIU
 Sample : JC15796-1MS Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103778.D\FID2B.CH Vial: 16
 Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
 Sample : JC15796-1MS Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 7:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:45:36 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.30	580397	636112	4550.649	4988.355
Spiked Amount	5000.000		Recovery	=	91.01%	99.77%
Target Compounds						
1) Methanol	1.40	0.78	78456	85773	4495.341	4939.679
2) Ethanol	1.83	1.00	102574	114781	4571.040	5202.732
3) Tert-Butyl Alcoh	2.50	1.43	161373	170756	4733.412	5338.666
4) 1-Propanol	2.97	1.74	134809	152026	4638.079	5288.319
5) 2-Propanol	2.21	1.22	111525	123731	4537.255	5303.596
7) Isobutanol	3.79	2.65	167638	170515	4953.951	5286.406
8) 1-Butanol	4.21	3.14	161452	171971	4830.206	4847.408
9) 2-Butanol	3.40	2.28	139371	150894	4538.898	5269.134

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103778.D MGH5193.M Fri Mar 18 07:59:55 2016 GCGH

11.4.1
 11

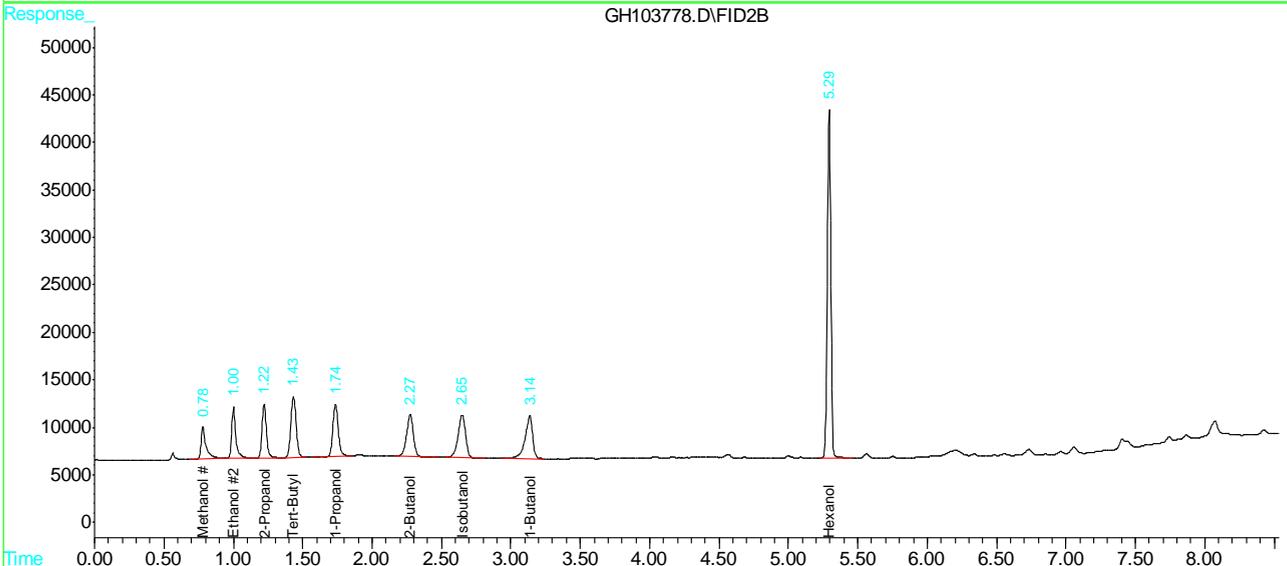
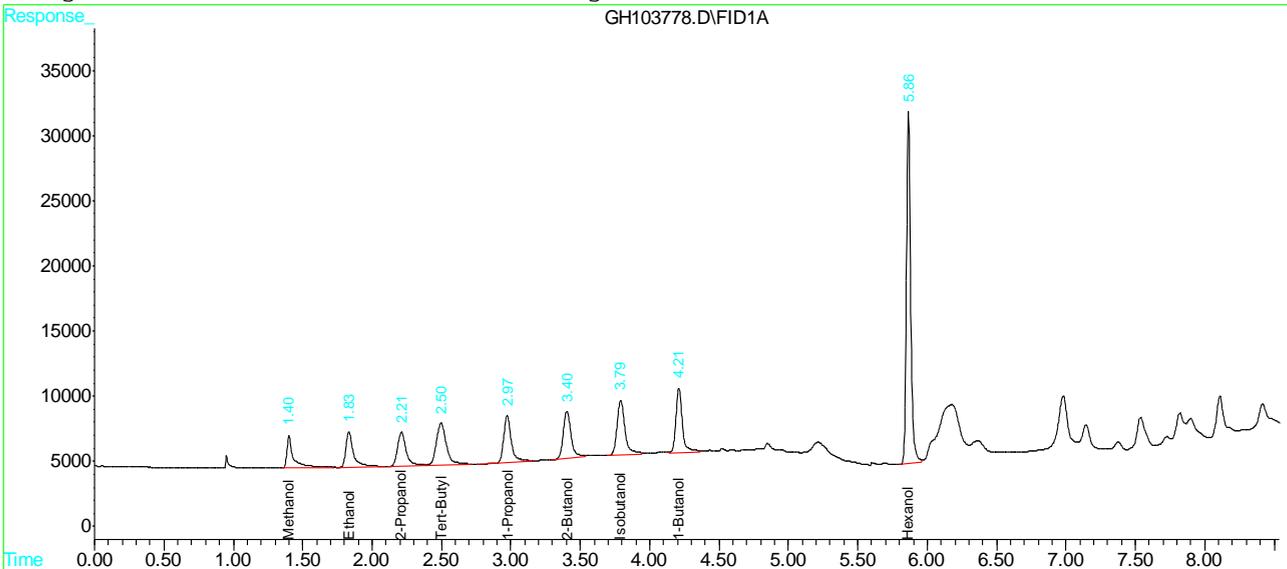
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103778.D\FID1A.CH Vial: 16
 Acq On : 17 Mar 2016 12:03 pm Operator: XULIU
 Sample : JC15796-1MS Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103778.D\FID2B.CH Vial: 16
 Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
 Sample : JC15796-1MS Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 7:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:45:36 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.4.1
 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103779.D\FID1A.CH Vial: 17
 Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
 Sample : JC15796-1MSD Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103779.D\FID2B.CH Vial: 17
 Acq On : 17 Mar 2016 12:32 pm Operator: XULIU
 Sample : JC15796-1MSD Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:00 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.29	572920	609303	4492.020	4778.127
Spiked Amount	5000.000		Recovery	=	89.84%	95.56%
Target Compounds						
1) Methanol	1.40	0.78	82029	87576	4700.075	5043.502
2) Ethanol	1.84	1.00	122692	117175	5467.569	5311.238
3) Tert-Butyl Alcoh	2.50	1.43	175658	170308	5152.448	5324.668
4) 1-Propanol	2.98	1.73	144353	144220	4966.428	5016.792
5) 2-Propanol	2.21	1.22	131509	124402	5350.250	5332.367
7) Isobutanol	3.79	2.65	173143	168805	5116.610	5233.388
8) 1-Butanol	4.21	3.13	175241	168365	5242.716	4745.755
9) 2-Butanol	3.41	2.27	149213	148651	4859.409	5190.831

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103779.D MGH5193.M Fri Mar 18 08:00:10 2016 GCGH

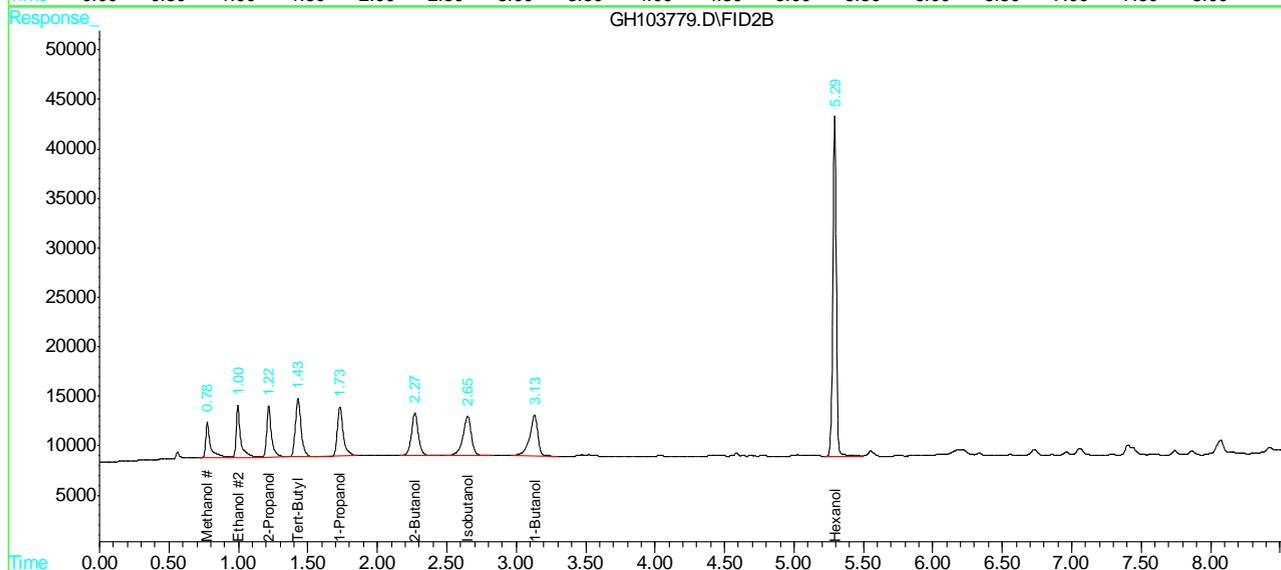
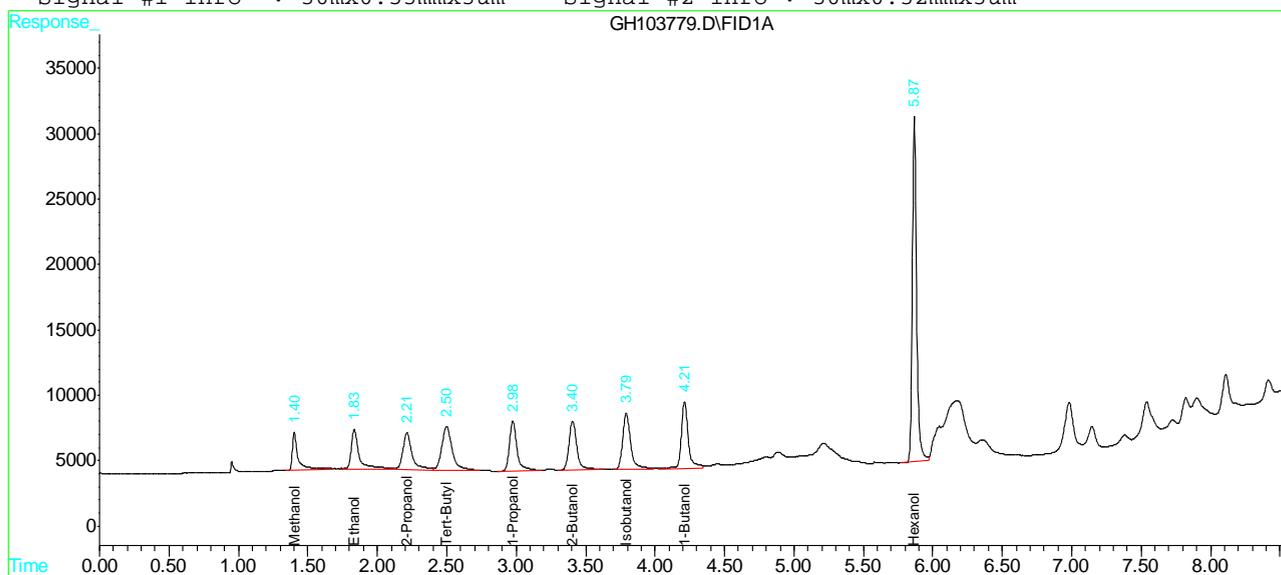
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103779.D\FID1A.CH Vial: 17
 Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
 Sample : JC15796-1MSD Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103779.D\FID2B.CH Vial: 17
 Acq On : 17 Mar 2016 12:32 pm Operator: XULIU
 Sample : JC15796-1MSD Inst : GCGH
 Misc : GC47904,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:00 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH Vial: 17
 Acq On : 29 Feb 2016 9:41 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH Vial: 17
 Acq On : 29 Feb 2016 9:56 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:41 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:34:22 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.89	5.34	521870	515664	4414.308	4449.995
Spiked Amount	5000.000		Recovery	=	88.29%	89.00%
Target Compounds						
1) Methanol	1.43	0.80	18411	16136	1052.348	961.397
2) Ethanol	1.86	1.02	22490	22670	971.203	1012.320
3) Tert-Butyl Alcoh	2.52	1.47	37533	33699	1083.596	1045.494
4) 1-Propanol	3.00	1.78	30594	28909	1025.859	1001.376m
5) 2-Propanol	2.24	1.25	29488	24128	1177.659	1027.831
7) Isobutanol	3.82	2.71	34848	31069	1012.693	960.595
8) 1-Butanol	4.24	3.19	36273	30738	1105.147	972.642
9) 2-Butanol	3.43	2.33	31759	29963	1039.954	1037.836

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103536.D MGH5193.M Mon Feb 29 13:42:07 2016 GCGH

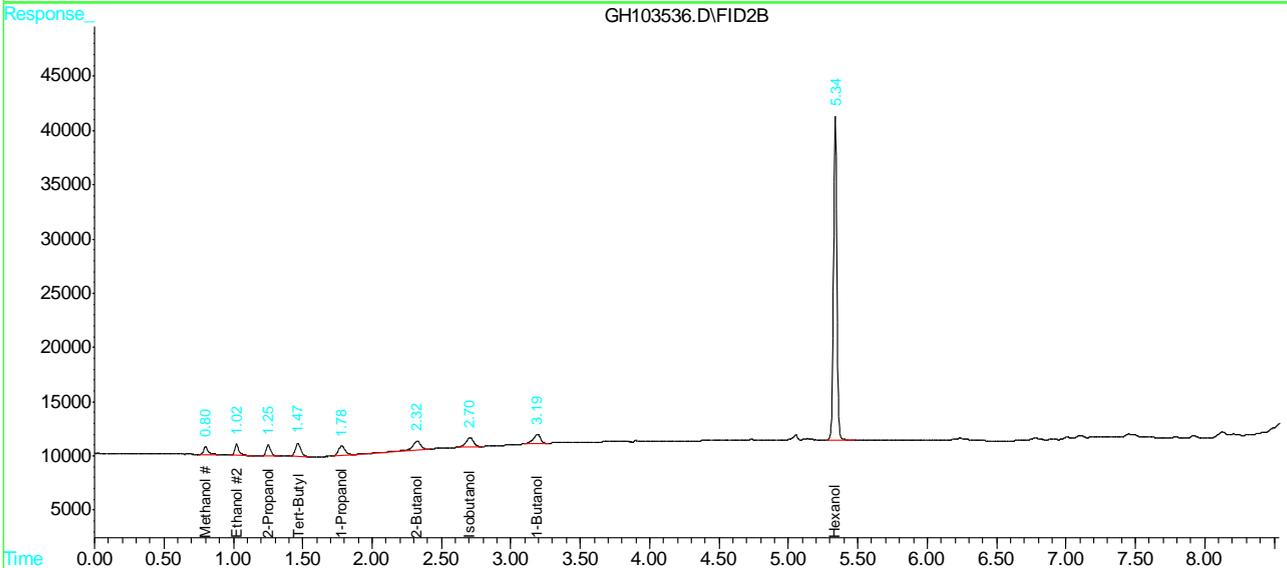
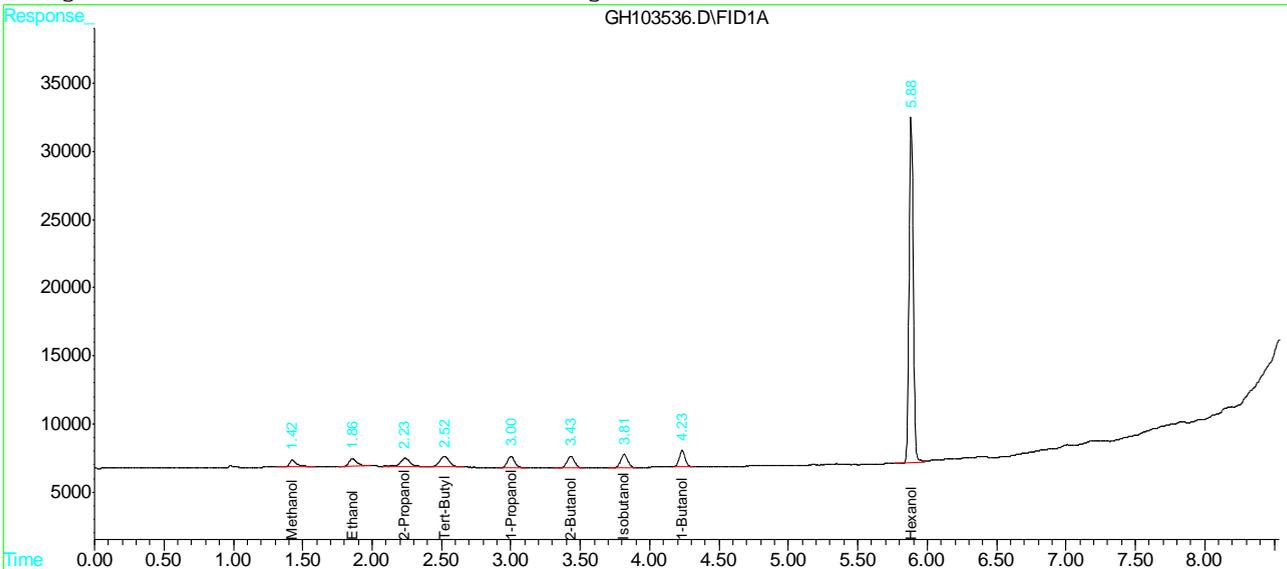
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH Vial: 17
 Acq On : 29 Feb 2016 9:41 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH Vial: 17
 Acq On : 29 Feb 2016 9:56 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:41 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:34:22 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.5.1
 11

Manual Integration Approval Summary

Sample Number: GGH5193-IC5193 Method: SW846-8015C (DAI)
Lab FileID: GH103536.D Analyst approved: 03/01/16 13:28 Xu Liu
Injection Time: 02/29/16 09:41 Supervisor approved: 03/01/16 14:34 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Propyl Alcohol	71-23-8	2	1.78	Poorly defined baseline

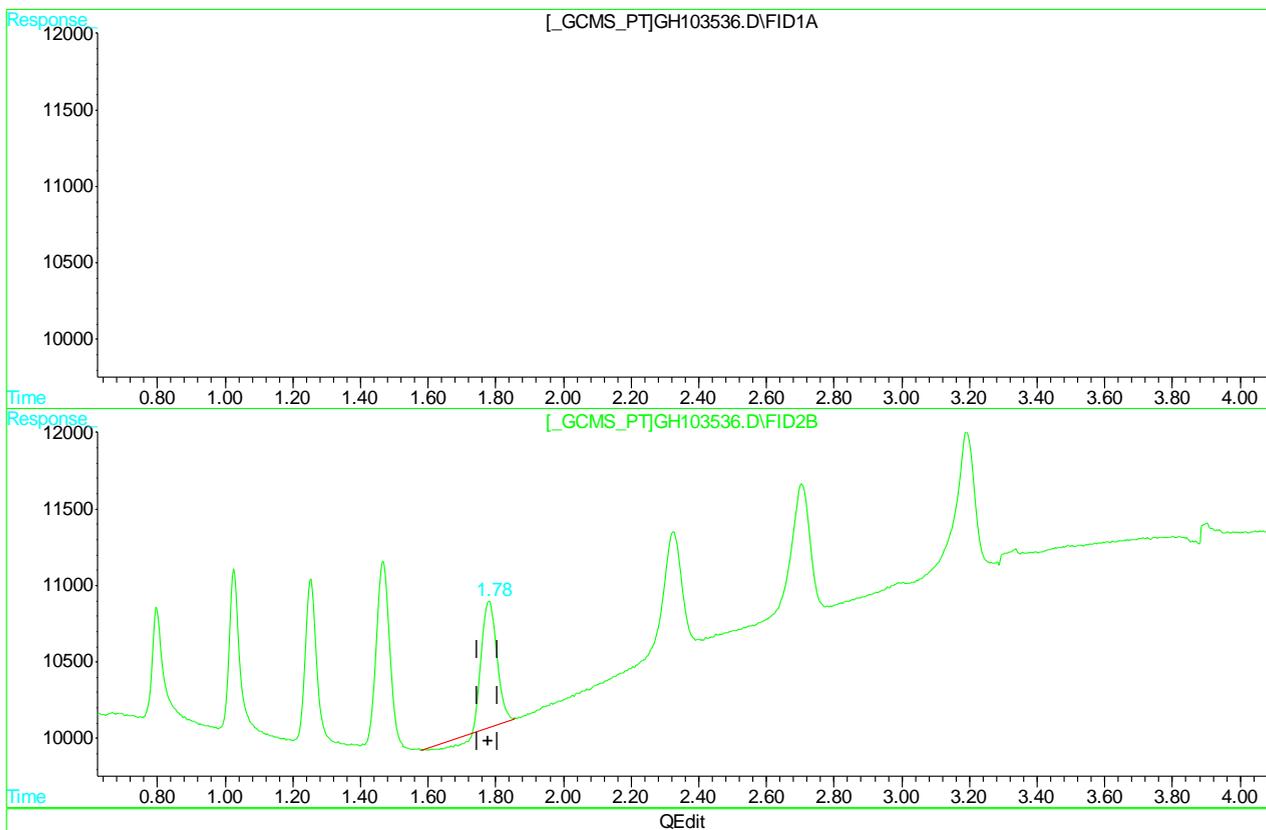
11.5.1.1
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH Vial: 17
 Acq On : 29 Feb 2016 9:41 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH Vial: 17
 Acq On : 29 Feb 2016 9:56 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:39 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:39:43 2016
 Response via : Multiple Level Calibration



- (4) 1-Propanol
3.00min 1025.859PPB
response 30594
- (4) 1-Propanol #2
1.78min 805.984PPB
response 23268

(+) = Expected Retention Time

GH103536.D MGH5193.M Mon Feb 29 13:40:46 2016 GCGH

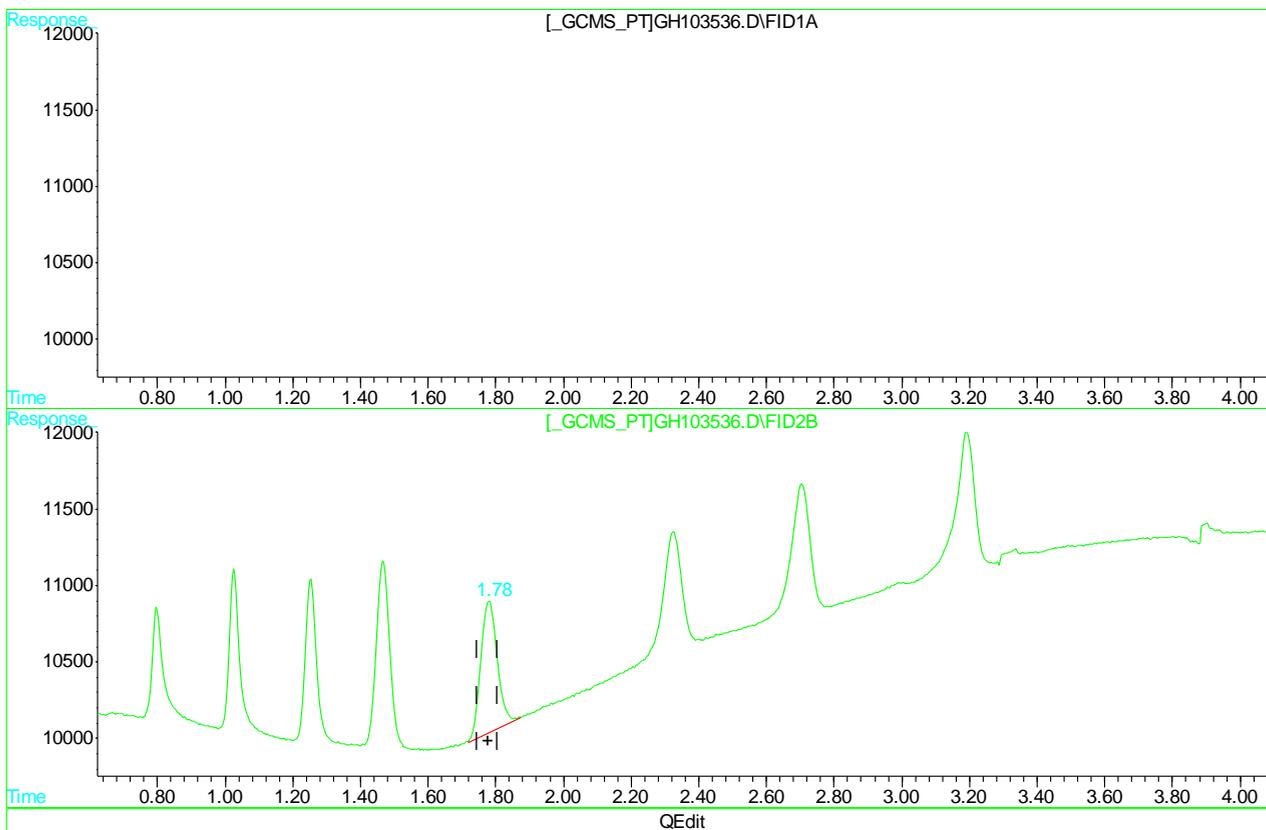
11.5.12
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH Vial: 17
 Acq On : 29 Feb 2016 9:41 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH Vial: 17
 Acq On : 29 Feb 2016 9:56 am Operator: XULIU
 Sample : IC5193-1000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:39 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:39:43 2016
 Response via : Multiple Level Calibration



(4) 1-Propanol
 3.00min 1025.859PPB
 response 30594

(4) 1-Propanol #2
 1.78min 1001.376PPB m
 response 28909

(+) = Expected Retention Time

GH103536.D MGH5193.M Mon Feb 29 13:41:35 2016 GCGH

11.5.13
11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID1A.CH Vial: 19
 Acq On : 29 Feb 2016 10:10 am Operator: XULIU
 Sample : IC5193-10000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID2B.CH Vial: 19
 Acq On : 29 Feb 2016 10:25 am Operator: XULIU
 Sample : IC5193-10000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:24 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 10:49:38 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.88	5.34	632380	618892	5290.958	5011.876
Spiked Amount	5000.000		Recovery	=	105.82%	100.24%
Target Compounds						
1) Methanol	1.42	0.80	170293	171065	11684.918	11628.082
2) Ethanol	1.85	1.02	235648	228413	11443.732	11055.620
3) Tert-Butyl Alcoh	2.52	1.47	350977	331750	10799.667	10330.810
4) 1-Propanol	2.99	1.78	299088	292838	10599.555	10839.016
5) 2-Propanol	2.23	1.25	250373	240597	11170.240	10725.872
7) Isobutanol	3.81	2.70	350529	337406	10985.588	10485.575
8) 1-Butanol	4.23	3.19	338910	326780	10764.220	10083.368
9) 2-Butanol	3.43	2.33	312227	298461	10912.214	11064.895

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103538.D MGH5193.M Mon Feb 29 13:25:01 2016 GCGH

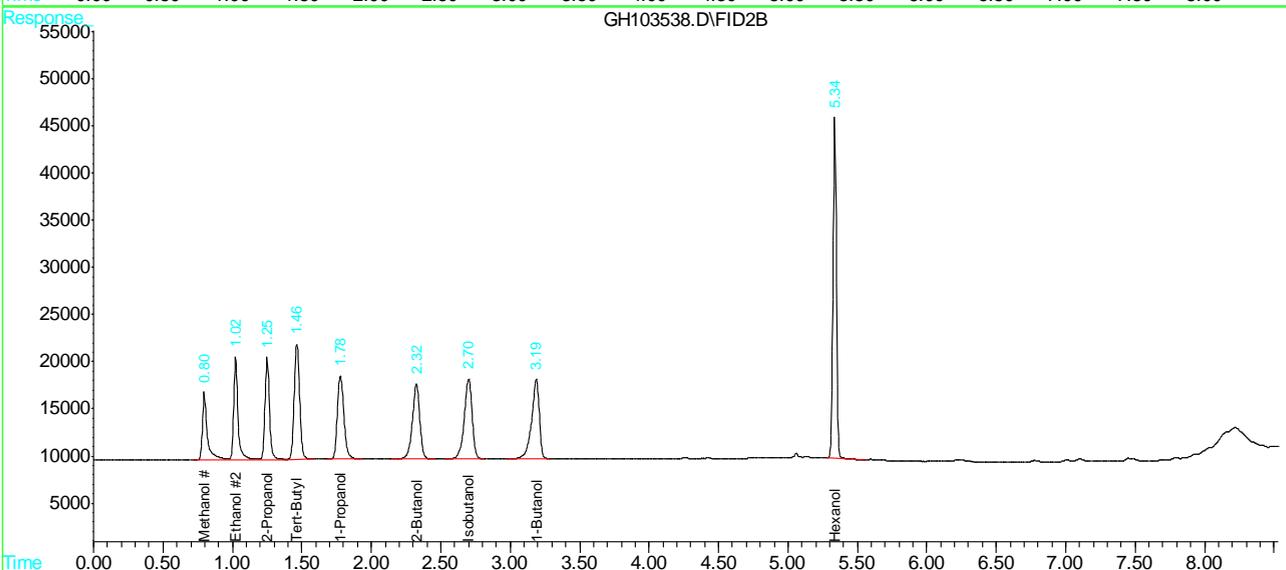
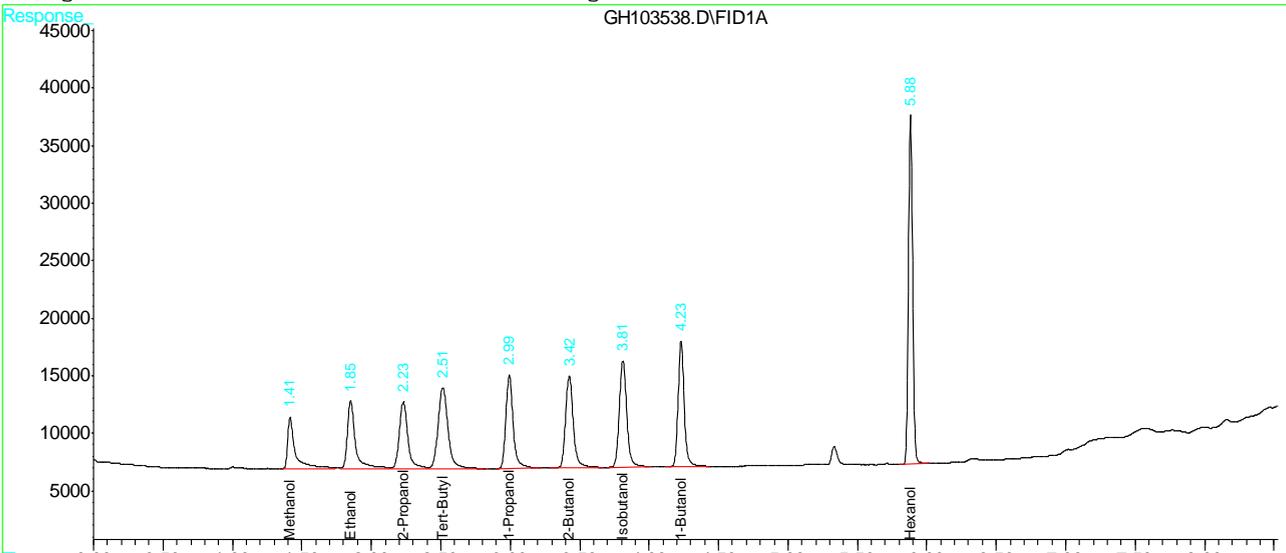
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID1A.CH Vial: 19
 Acq On : 29 Feb 2016 10:10 am Operator: XULIU
 Sample : IC5193-10000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID2B.CH Vial: 19
 Acq On : 29 Feb 2016 10:25 am Operator: XULIU
 Sample : IC5193-10000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:24 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 10:49:38 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID1A.CH Vial: 20
 Acq On : 29 Feb 2016 10:25 am Operator: XULIU
 Sample : IC5193-50000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID2B.CH Vial: 20
 Acq On : 29 Feb 2016 10:39 am Operator: XULIU
 Sample : IC5193-50000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:25 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 10:49:38 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.89	5.34	753846	737708	6307.224	5974.064
Spiked Amount	5000.000		Recovery	=	126.14%	119.48%
Target Compounds						
1) Methanol	1.42	0.80	831725	786308	57070.044	53449.149
2) Ethanol	1.85	1.02	1091869	1046013	53024.163	50628.896
3) Tert-Butyl Alcoh	2.51	1.47	1618405	1527069	49798.786	47553.501
4) 1-Propanol	2.99	1.78	1410633	1341483	49992.231	49653.259
5) 2-Propanol	2.23	1.25	1173173	1108753	52340.302	49428.497
7) Isobutanol	3.82	2.70	1609558	1529443	50443.618	47530.526
8) 1-Butanol	4.23	3.20	1527185	1468644	48505.323	45317.541
9) 2-Butanol	3.43	2.32	1436581	1360726	50207.941	50446.386

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103539.D MGH5193.M Mon Feb 29 13:25:15 2016 GCGH

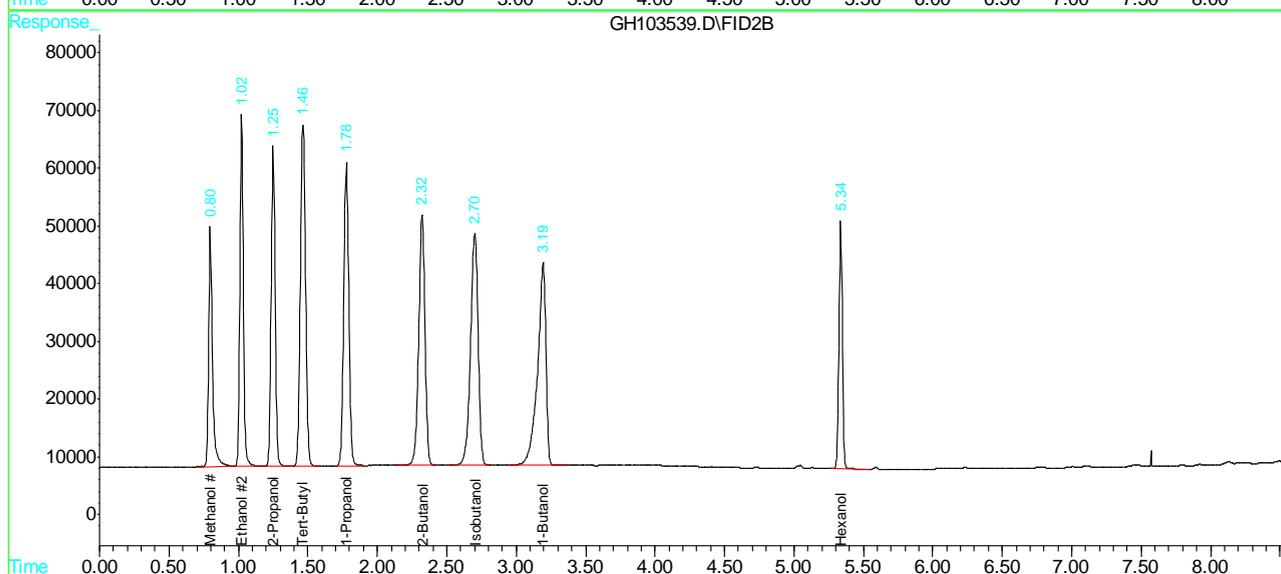
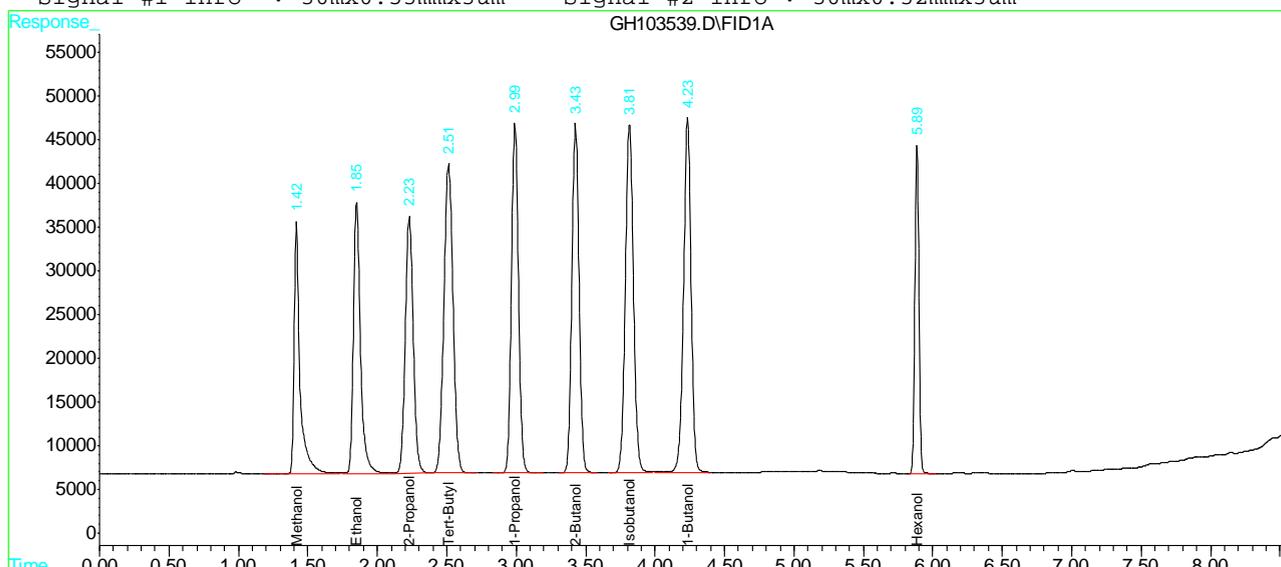
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID1A.CH Vial: 20
 Acq On : 29 Feb 2016 10:25 am Operator: XULIU
 Sample : IC5193-50000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID2B.CH Vial: 20
 Acq On : 29 Feb 2016 10:39 am Operator: XULIU
 Sample : IC5193-50000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:25 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 10:49:38 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID1A.CH Vial: 21
 Acq On : 29 Feb 2016 10:39 am Operator: XULIU
 Sample : IC5193-100000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID2B.CH Vial: 21
 Acq On : 29 Feb 2016 10:57 am Operator: XULIU
 Sample : IC5193-100000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:25 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 10:49:38 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.89	5.34	762379	756038	6378.624	6122.502
Spiked Amount	5000.000		Recovery	=	127.57%	122.45%
Target Compounds						
1) Methanol	1.42	0.80	1779651	1707777	122113.328	116085.808
2) Ethanol	1.85	1.02	2349319	2287965	114089.375	110741.557
3) Tert-Butyl Alcoh	2.51	1.46	3492408	3302691	107462.375	102847.039
4) 1-Propanol	2.99	1.78	3029689	2893990	107370.879	107117.291
5) 2-Propanol	2.23	1.25	2529033	2413432	112831.064	107591.432
7) Isobutanol	3.82	2.70	3484319	3290247	109198.681	102251.057
8) 1-Butanol	4.23	3.19	3265181	3245269	103706.261	100138.368
9) 2-Butanol	3.43	2.32	3066220	2923878	107163.152	108397.288

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103540.D MGH5193.M Mon Feb 29 13:25:30 2016 GCGH

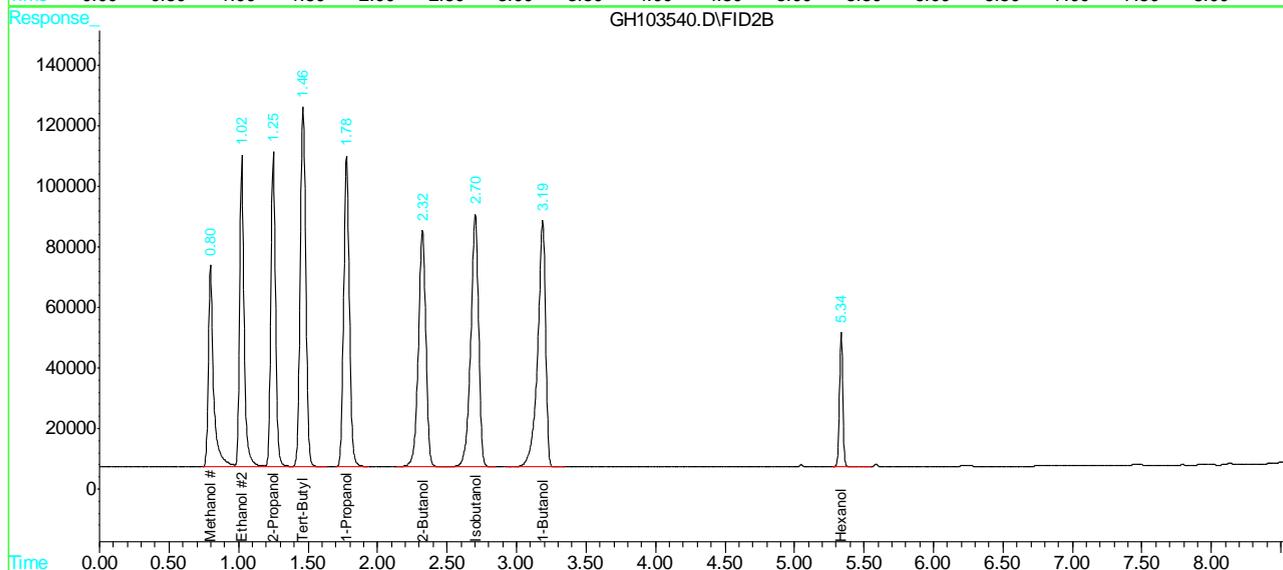
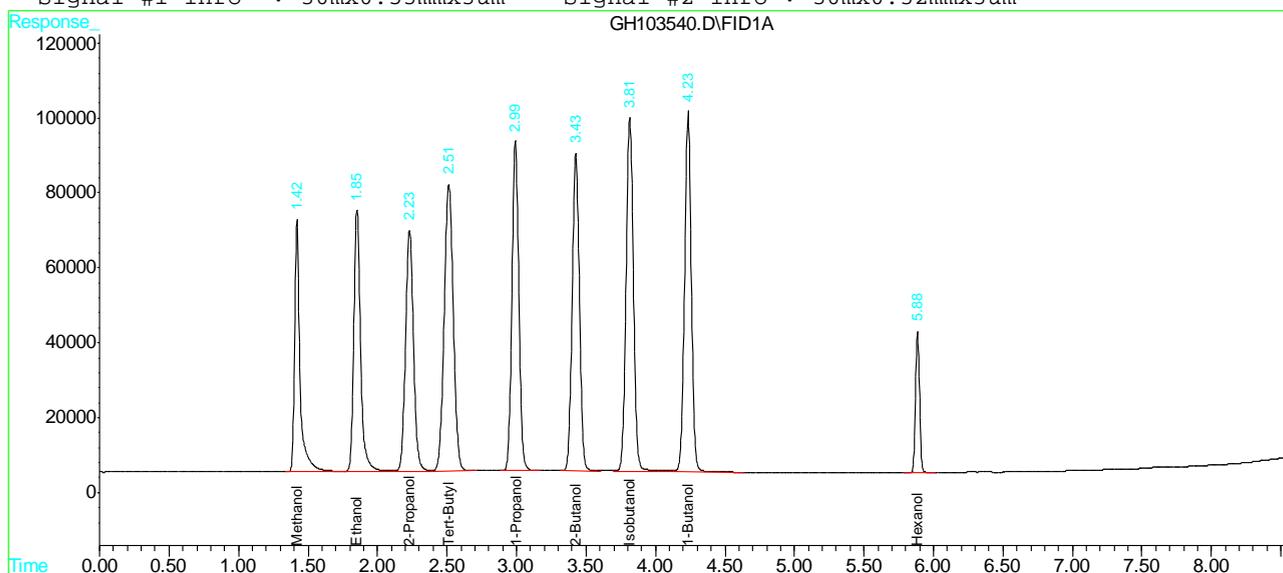
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID1A.CH Vial: 21
 Acq On : 29 Feb 2016 10:39 am Operator: XULIU
 Sample : IC5193-100000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID2B.CH Vial: 21
 Acq On : 29 Feb 2016 10:57 am Operator: XULIU
 Sample : IC5193-100000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:25 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 10:49:38 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH Vial: 22
 Acq On : 29 Feb 2016 10:57 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH Vial: 22
 Acq On : 29 Feb 2016 11:10 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:34 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:27:39 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.88	5.34	627374	611421	5306.730	5276.343
Spiked Amount	5000.000		Recovery	=	106.13%	105.53%
Target Compounds						
1) Methanol	1.42	0.80	92609	86129	5293.274	5131.587
2) Ethanol	1.85	1.03	118659	114677	5124.160	5120.833
3) Tert-Butyl Alcoh	2.51	1.47	180800	160931	5219.790	4965.652
4) 1-Propanol	2.99	1.78	154372	152110	5176.241	5084.369
5) 2-Propanol	2.23	1.25	131831	117651	5264.955	5011.800
7) Isobutanol	3.81	2.70	177787	160719	5166.554	4673.557
8) 1-Butanol	4.23	3.19	171004	159534	5210.074	5016.629
9) 2-Butanol	3.42	2.33	157688	145917	5163.577	4269.357m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103541.D MGH5193.M Mon Feb 29 13:34:13 2016 GCGH

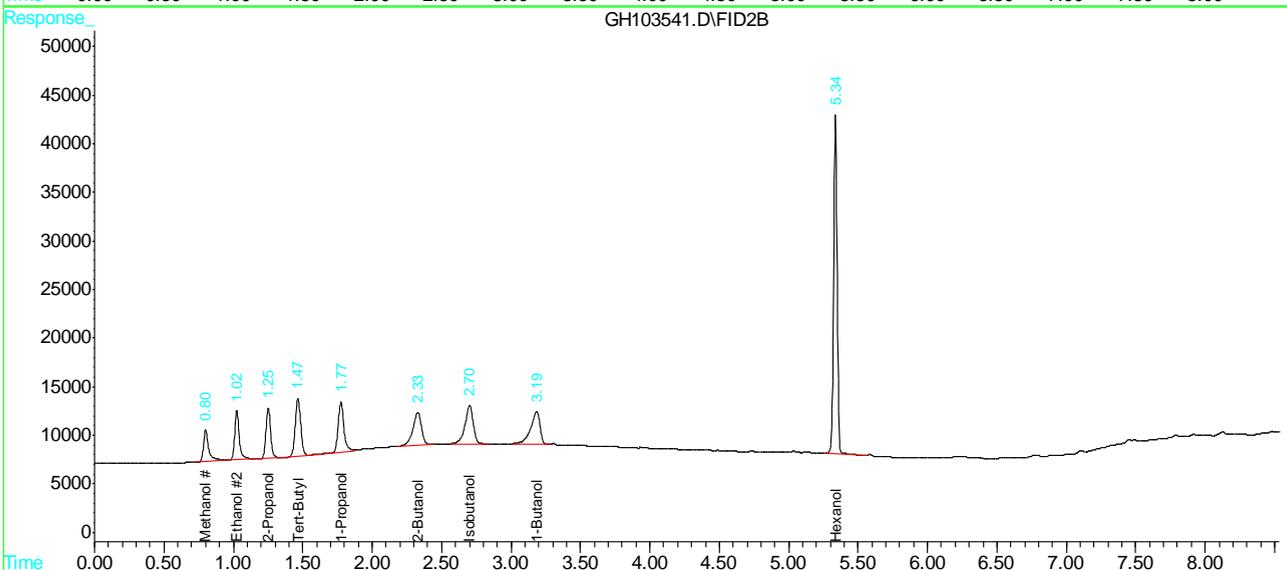
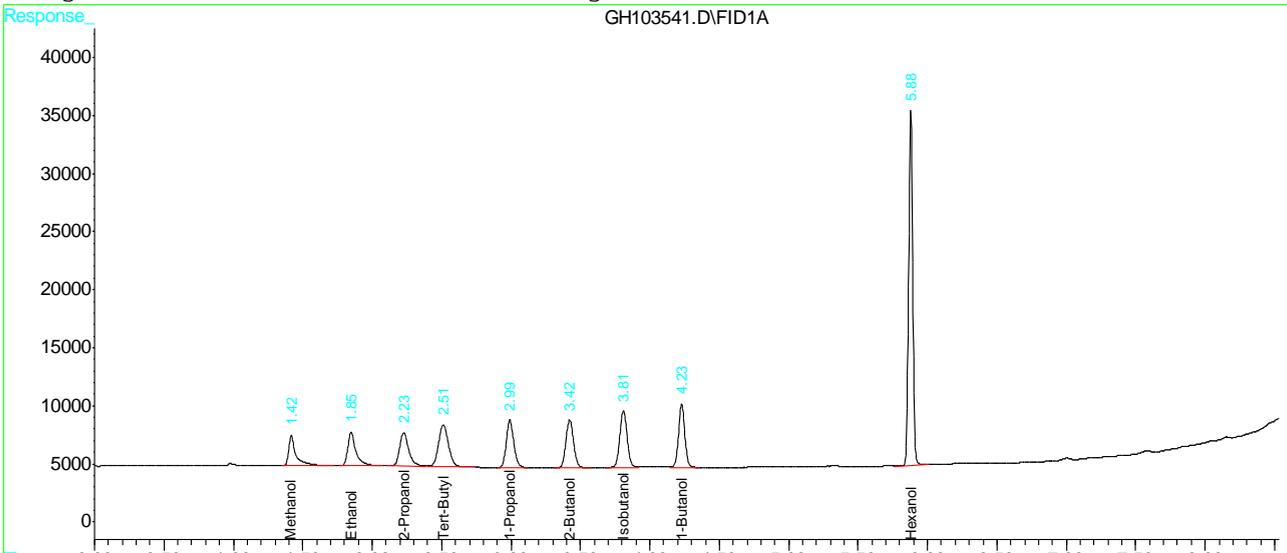
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH Vial: 22
 Acq On : 29 Feb 2016 10:57 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH Vial: 22
 Acq On : 29 Feb 2016 11:10 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:34 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:27:39 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Manual Integration Approval Summary

Sample Number: GGH5193-ICC5193 Method: SW846-8015C (DAI)
Lab FileID: GH103541.D Analyst approved: 03/01/16 13:28 Xu Liu
Injection Time: 02/29/16 10:57 Supervisor approved: 03/01/16 14:34 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
sec-Butyl Alcohol	78-92-2	2	2.33	Poorly defined baseline

11.5.5.1

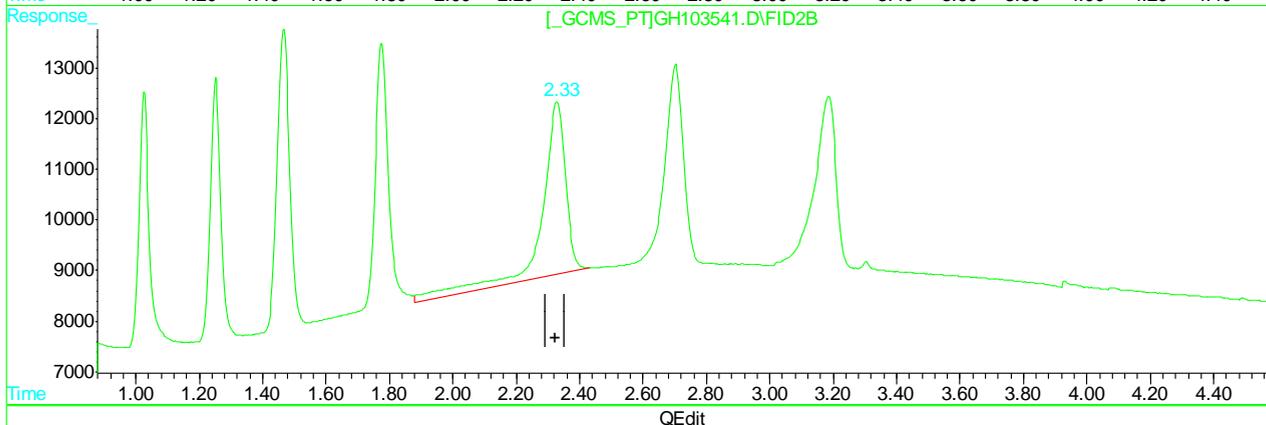
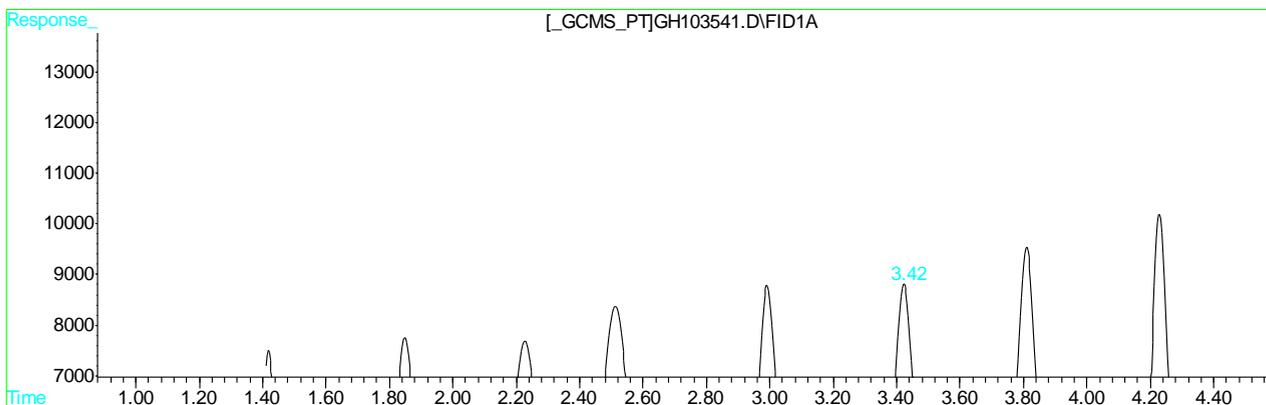
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH Vial: 22
 Acq On : 29 Feb 2016 10:57 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH Vial: 22
 Acq On : 29 Feb 2016 11:10 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:32 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:32:26 2016
 Response via : Multiple Level Calibration



(9) 2-Butanol
 3.42min 5163.577PPB
 response 157688

(9) 2-Butanol #2
 2.33min 5176.951PPB
 response 176936

(+) = Expected Retention Time

GH103541.D MGH5193.M Mon Feb 29 13:33:18 2016 GCGH

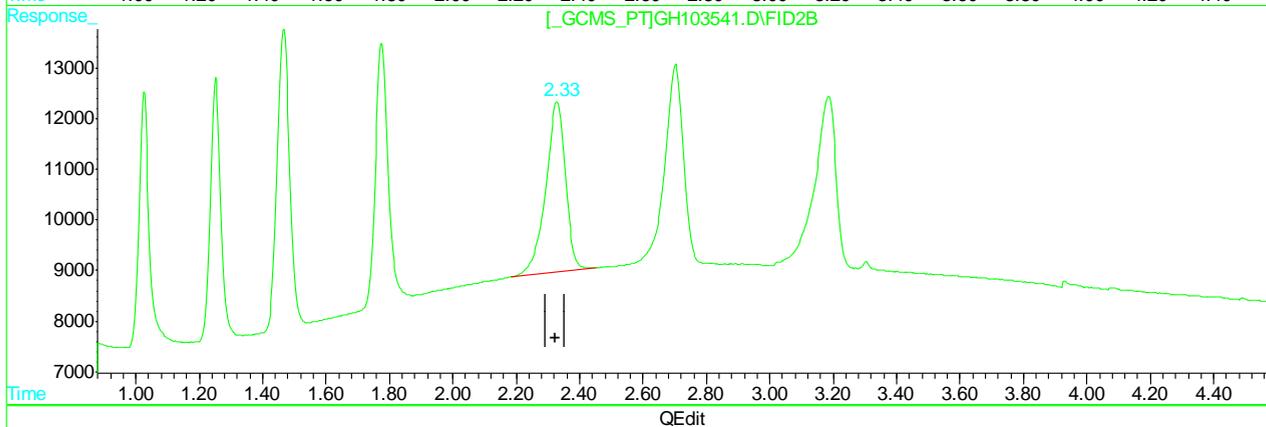
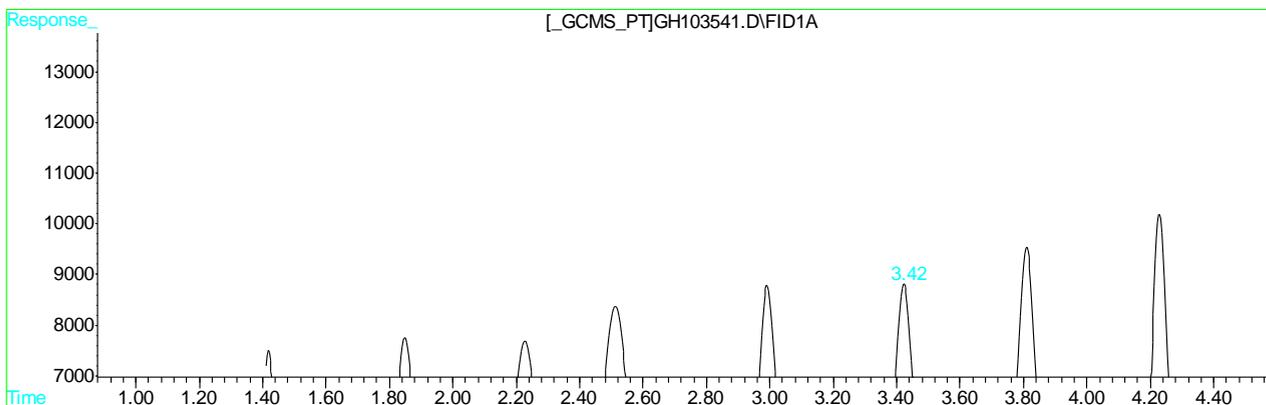
11.5.52
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH Vial: 22
 Acq On : 29 Feb 2016 10:57 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH Vial: 22
 Acq On : 29 Feb 2016 11:10 am Operator: XULIU
 Sample : ICC5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Feb 29 13:32 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Mon Feb 29 13:32:26 2016
 Response via : Multiple Level Calibration



(9) 2-Butanol
 3.42min 5163.577PPB
 response 157688

(9) 2-Butanol #2
 2.33min 4269.357PPB m
 response 145917

(+) = Expected Retention Time

GH103541.D MGH5193.M Mon Feb 29 13:34:08 2016 GCGH

11.5.5.3
 11

Manual Integrations
APPROVED
 (compounds with "m" flag)

Jessica Reitan-Chu
 03/01/16 14:34

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 12:07 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 07:54:41 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.88	5.34	338506	356649	2628.802	2776.345
Spiked Amount	5000.000		Recovery	=	52.58%	55.53%
Target Compounds						
1) Methanol	1.45f	0.80	7128	9089	416.617	502.554m
2) Ethanol	1.87f	1.03	10970	10120	480.229	458.322
3) Tert-Butyl Alcoh	2.52	1.47	13871	14529	388.904m	454.774
4) 1-Propanol	3.01f	1.78	10460	11823	355.989m	422.185
5) 2-Propanol	2.24	1.25	8410	10264	318.255m	444.470
7) Isobutanol	3.82	2.70	14482	14321	431.331	454.428
8) 1-Butanol	4.23	3.19	13713	17157	421.970	537.665
9) 2-Butanol	3.45f	2.33	11734	12260	396.922	432.808

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103543.D MGH5193.M Tue Mar 01 12:07:19 2016 GCGH

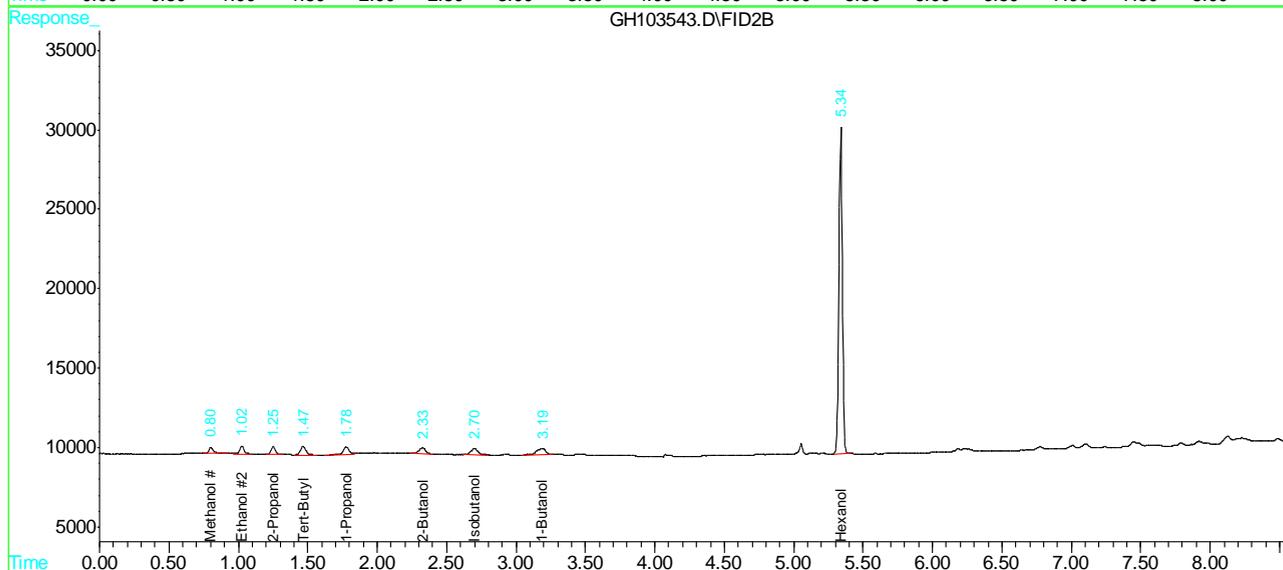
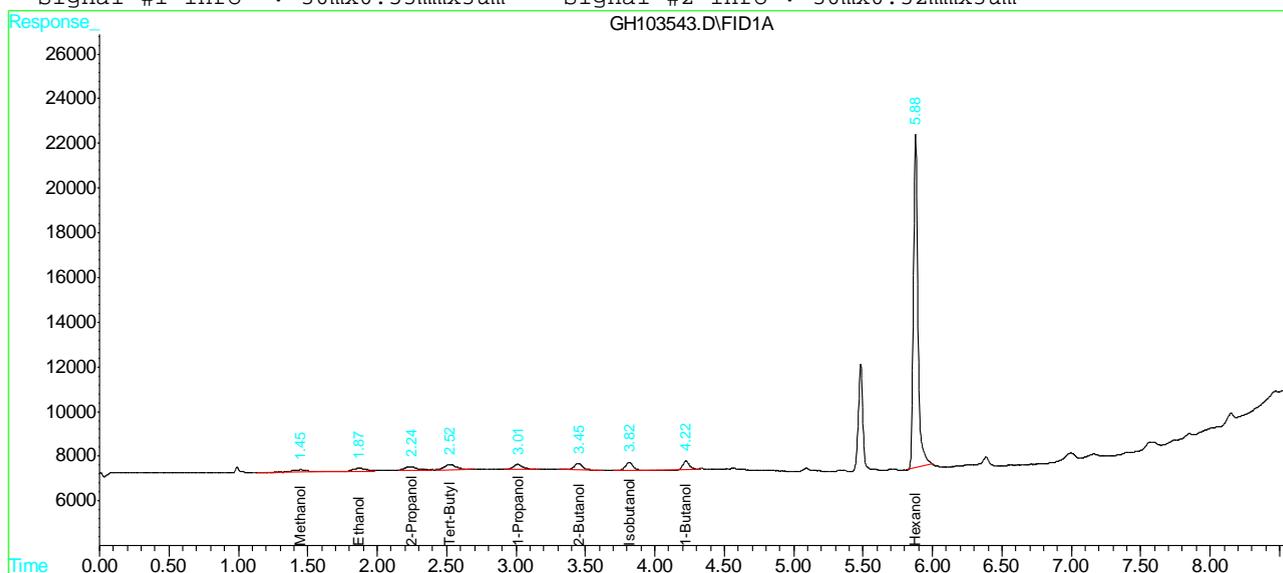
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 12:07 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 07:54:41 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Manual Integration Approval Summary

Sample Number: GGH5193-IC5193 Method: SW846-8015C (DAI)
Lab FileID: GH103543.D Analyst approved: 03/01/16 13:28 Xu Liu
Injection Time: 02/29/16 12:05 Supervisor approved: 03/01/16 14:34 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.80	Poorly defined baseline
Isopropyl Alcohol	67-63-0	1	2.24	Poorly defined baseline
Tertiary Butyl Alcohol	75-65-0	1	2.52	Poorly defined baseline
n-Propyl Alcohol	71-23-8	1	3.01	Poorly defined baseline

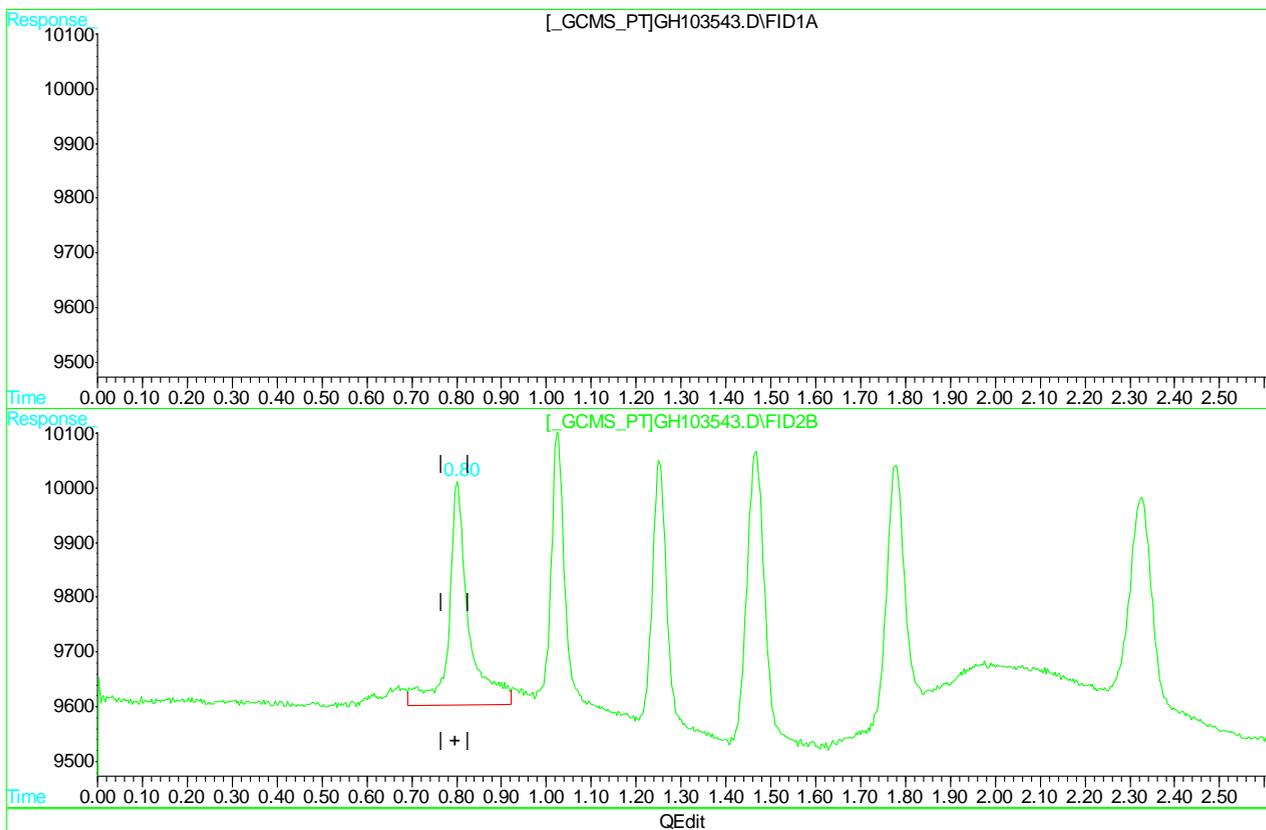
11.5.6.1
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 7:57 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:12:38 2016
 Response via : Multiple Level Calibration



- (1) Methanol
1.45min 416.617PPB
response 7128
- (1) Methanol #2
0.80min 697.836PPB
response 12621

(+) = Expected Retention Time
 GH103543.D MGH5193.M Tue Mar 01 08:16:04 2016 GCGH

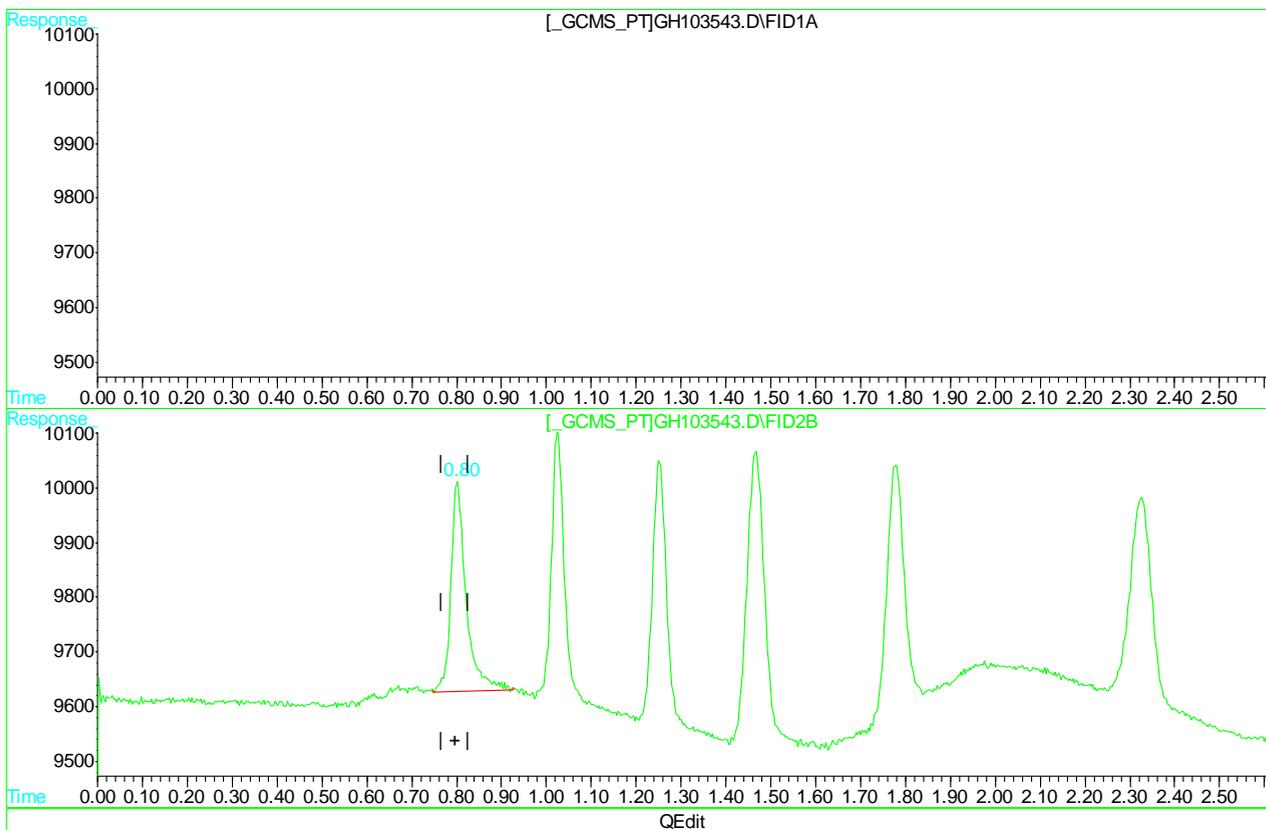
11.5.6.2
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 7:57 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:12:38 2016
 Response via : Multiple Level Calibration



- (1) Methanol
1.45min 416.617PPB
response 7128

- (1) Methanol #2
0.80min 502.554PPB m
response 9089

(+) = Expected Retention Time
 GH103543.D MGH5193.M Tue Mar 01 08:16:50 2016 GCGH

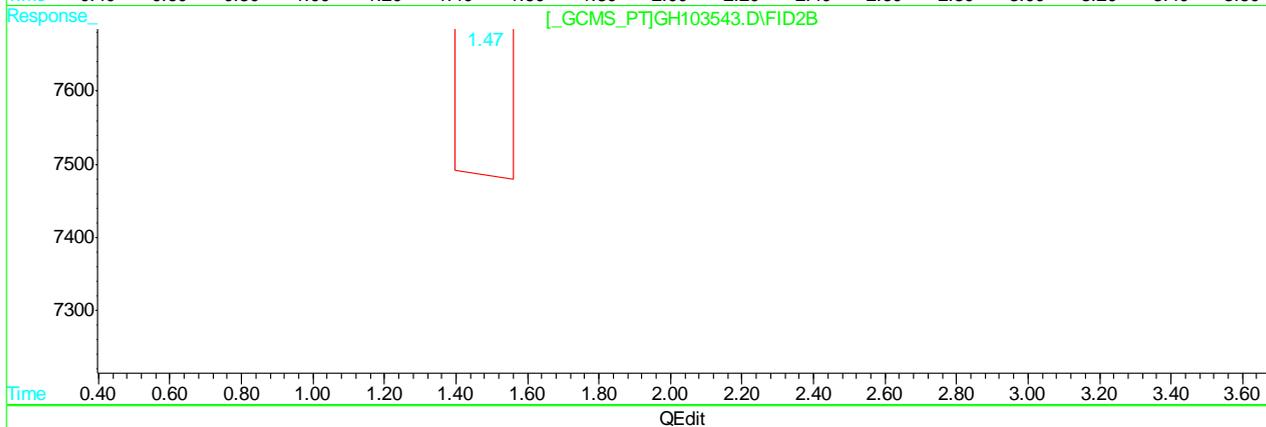
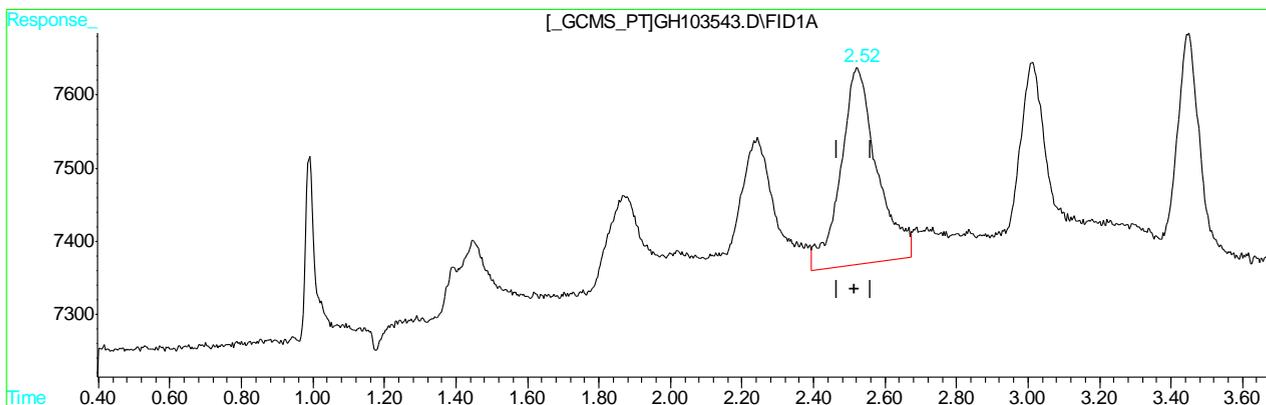
11.5.6.3
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:16 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:26:22 2016
 Response via : Multiple Level Calibration



(3) Tert-Butyl Alcohol

2.52min 531.527PPB

response 18958

(3) Tert-Butyl Alcohol #2

1.47min 454.774PPB

response 14529

(+) = Expected Retention Time

GH103543.D MGH5193.M

Tue Mar 01 10:16:49 2016

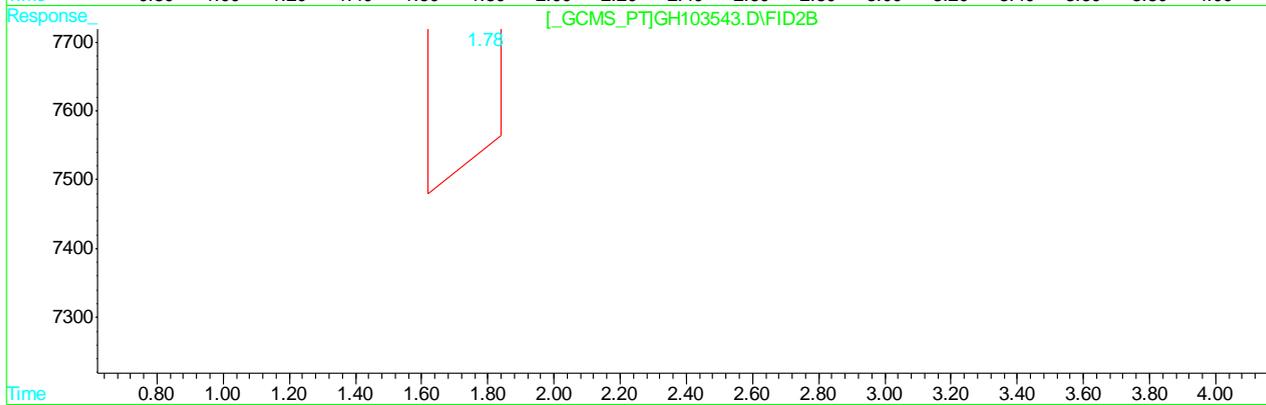
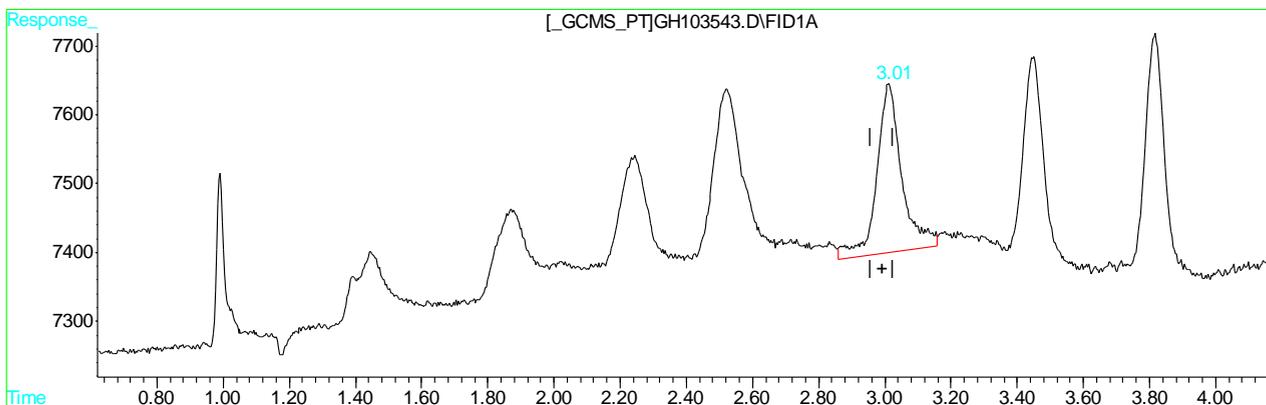
GCGH

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:16 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:26:22 2016
 Response via : Multiple Level Calibration



(4) 1-Propanol
 3.01min 449.441PPB
 response 13206

(4) 1-Propanol #2
 1.78min 422.185PPB
 response 11823

(+) = Expected Retention Time

GH103543.D MGH5193.M Tue Mar 01 10:17:11 2016 GCGH

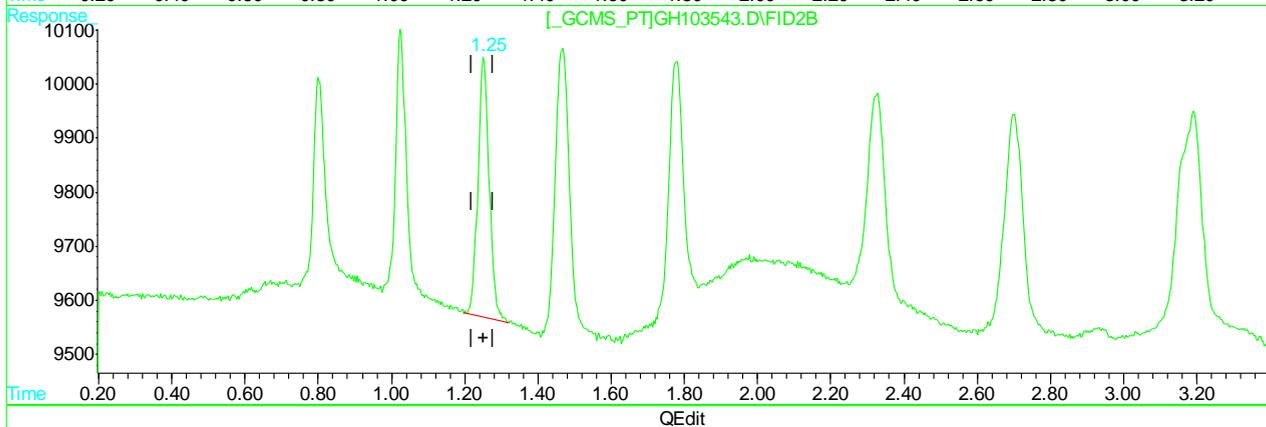
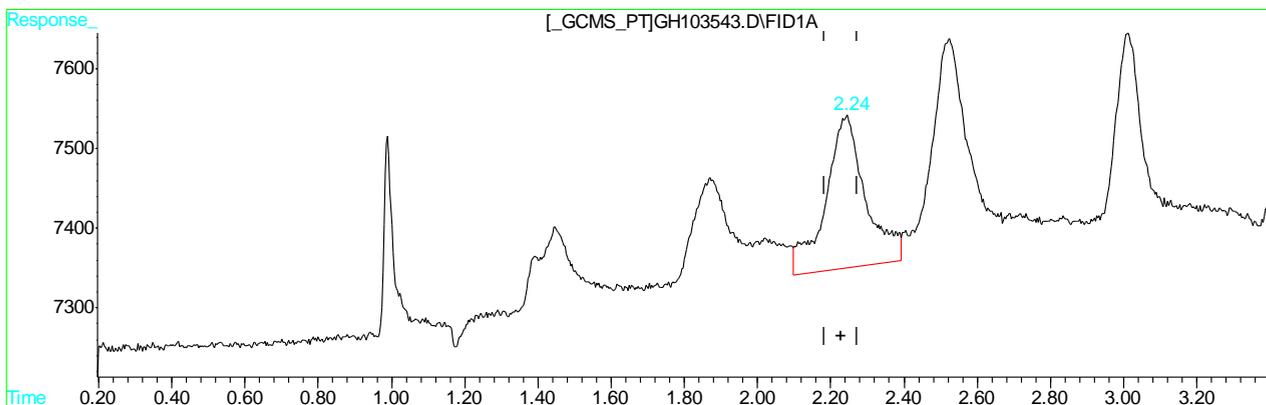
11.5.6.5
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:16 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:26:22 2016
 Response via : Multiple Level Calibration



(5) 2-Propanol
 2.24min 546.957PPB
 response 14454

(5) 2-Propanol #2
 1.25min 444.470PPB
 response 10264

(+) = Expected Retention Time

GH103543.D MGH5193.M

Tue Mar 01 10:17:42 2016

GCGH

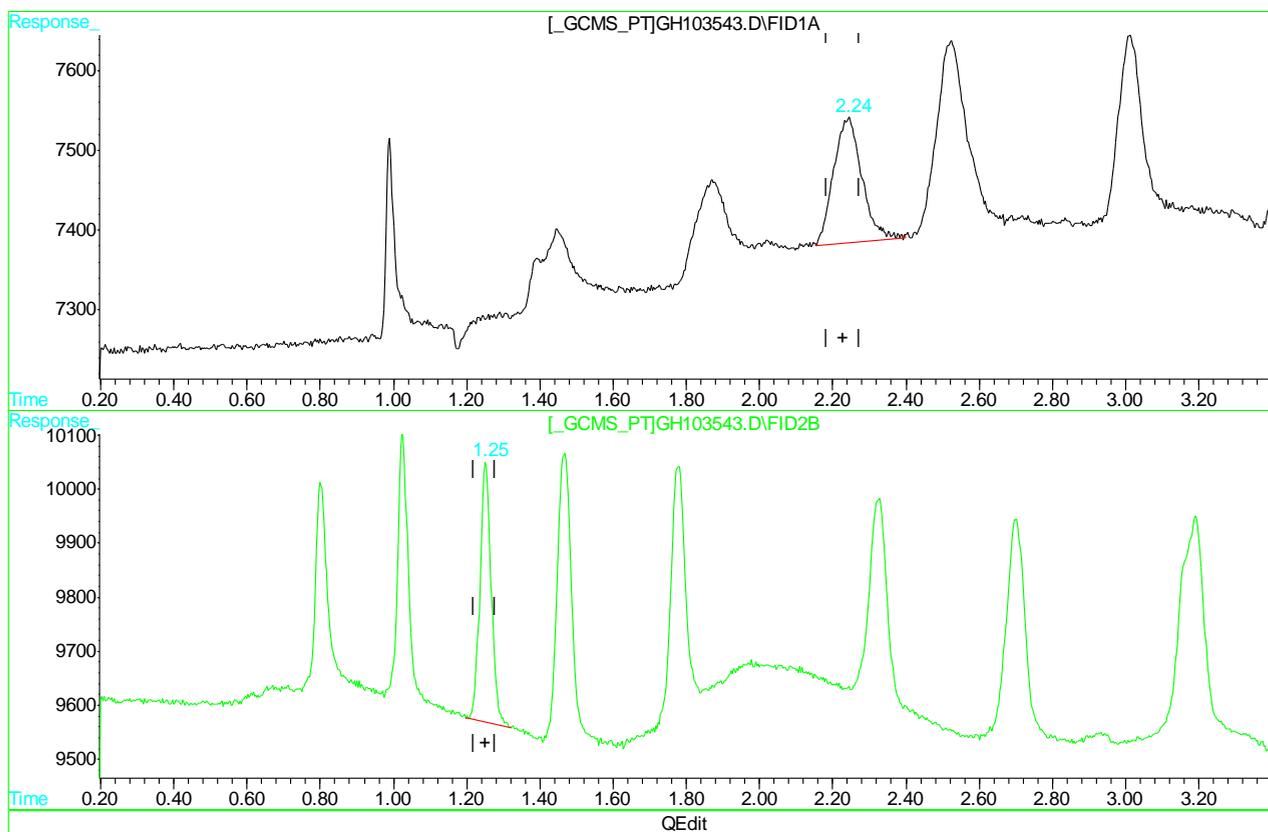
11.5.6.6
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:16 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:26:22 2016
 Response via : Multiple Level Calibration



(5) 2-Propanol
 2.24min 318.255PPB m
 response 8410

(5) 2-Propanol #2
 1.25min 444.470PPB
 response 10264

(+) = Expected Retention Time

GH103543.D MGH5193.M

Tue Mar 01 10:18:02 2016

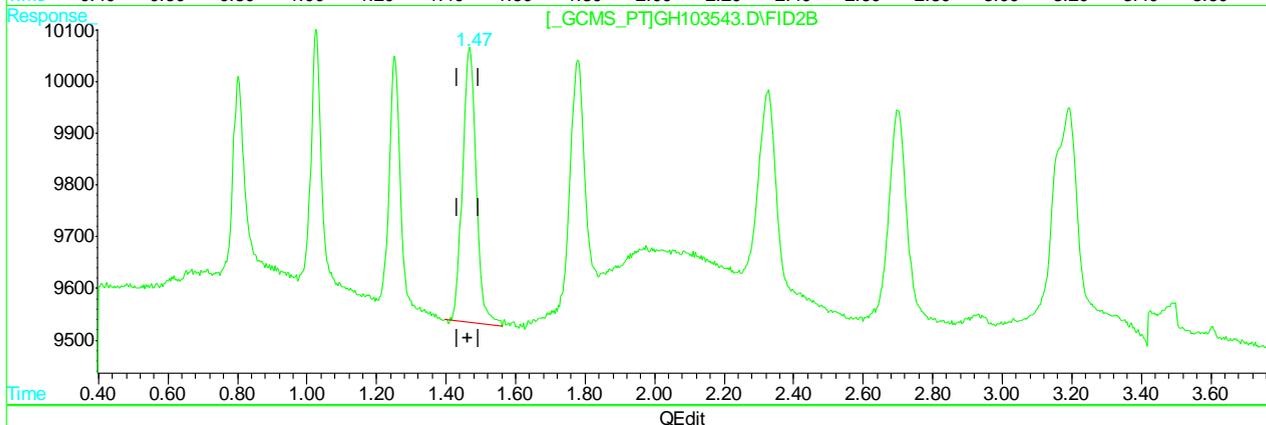
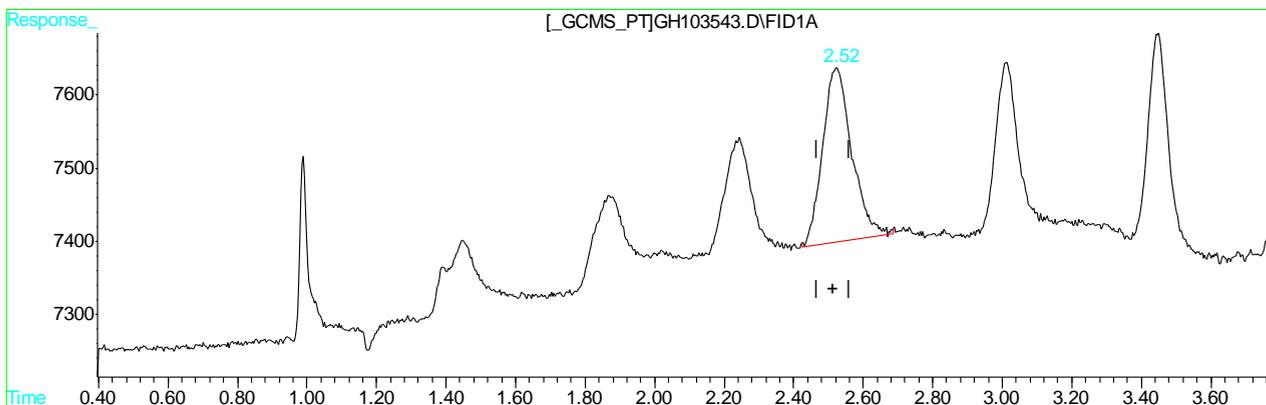
GCGH

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 10:17 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 11:02:24 2016
 Response via : Multiple Level Calibration



(3) Tert-Butyl Alcohol
 2.52min 388.904PPB m
 response 13871

(3) Tert-Butyl Alcohol #2
 1.47min 454.774PPB
 response 14529

(+) = Expected Retention Time

GH103543.D MGH5193.M

Tue Mar 01 12:06:57 2016

GCGH

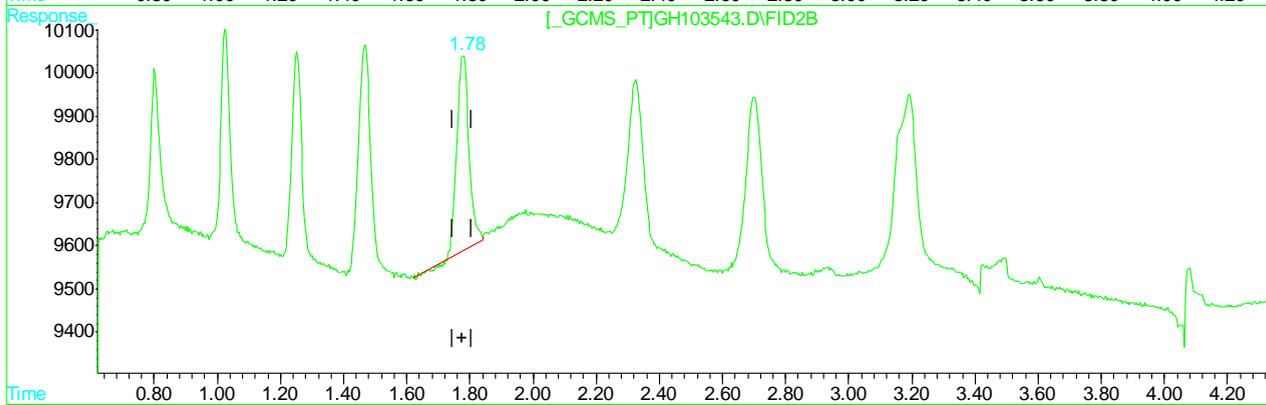
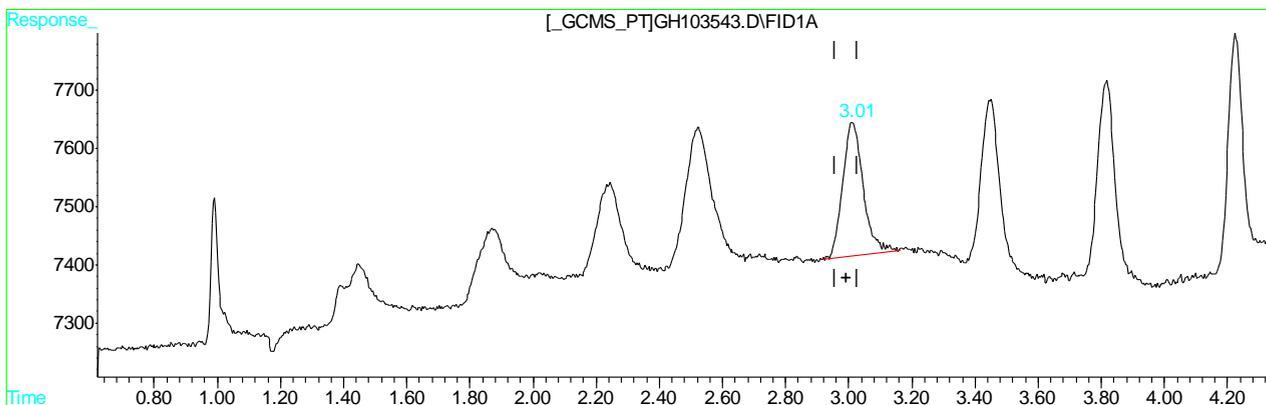
11.5.68
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
 Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-500 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 10:17 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 11:02:24 2016
 Response via : Multiple Level Calibration



(4) 1-Propanol
 3.01min 355.989PPB m
 response 10460

(4) 1-Propanol #2
 1.78min 422.185PPB
 response 11823

(+) = Expected Retention Time
 GH103543.D MGH5193.M Tue Mar 01 12:07:11 2016 GCGH

11.5.6.9
 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 10:15 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:10:45 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.88	5.34	96146	97501	753.837	764.597
Spiked Amount	5000.000		Recovery	=	15.08%	15.29%
Target Compounds						
1) Methanol	1.42	0.80	1952	2010	111.847	109.390
2) Ethanol	1.85	1.02	2002	2194	82.002m	99.470
3) Tert-Butyl Alcoh	2.51	1.47	3482	3221	97.961	100.694
4) 1-Propanol	2.99	1.78	3265	3320	109.388	115.495
5) 2-Propanol	2.22	1.25	2559	2475	96.011m	106.098
7) Isobutanol	3.81	2.70	3542	3670	104.664	113.781
8) 1-Butanol	4.23	3.18	3899	5688	116.654	155.884m
9) 2-Butanol	3.42	2.32	3756	3049	122.321	106.484

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103544.D MGH5193.M Tue Mar 01 10:16:01 2016 GCGH

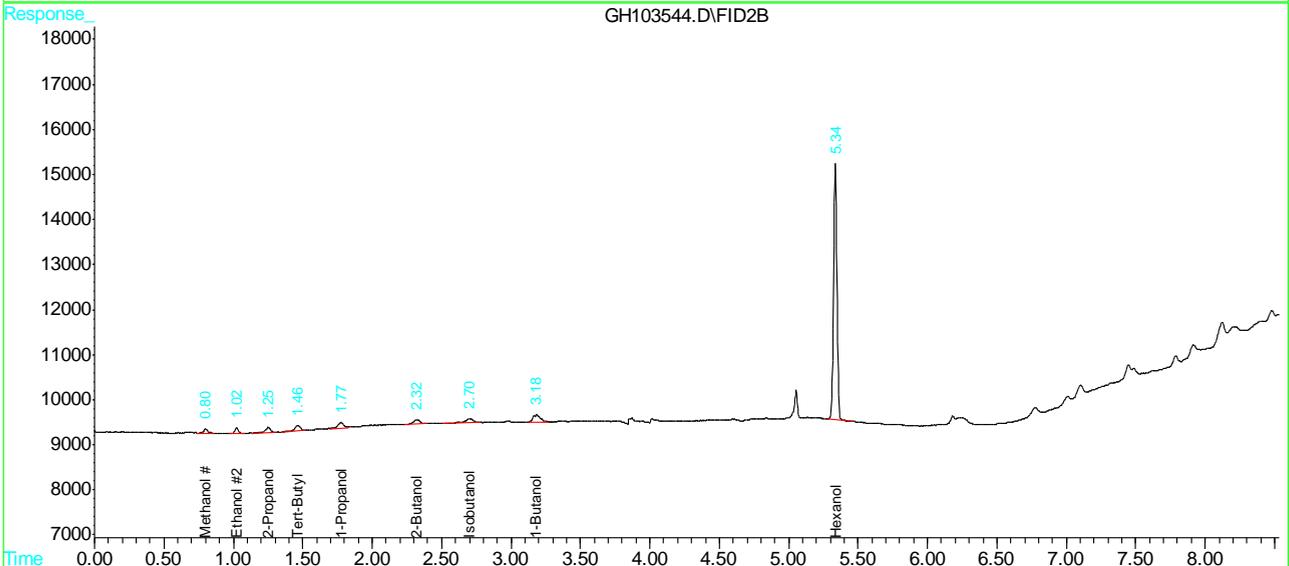
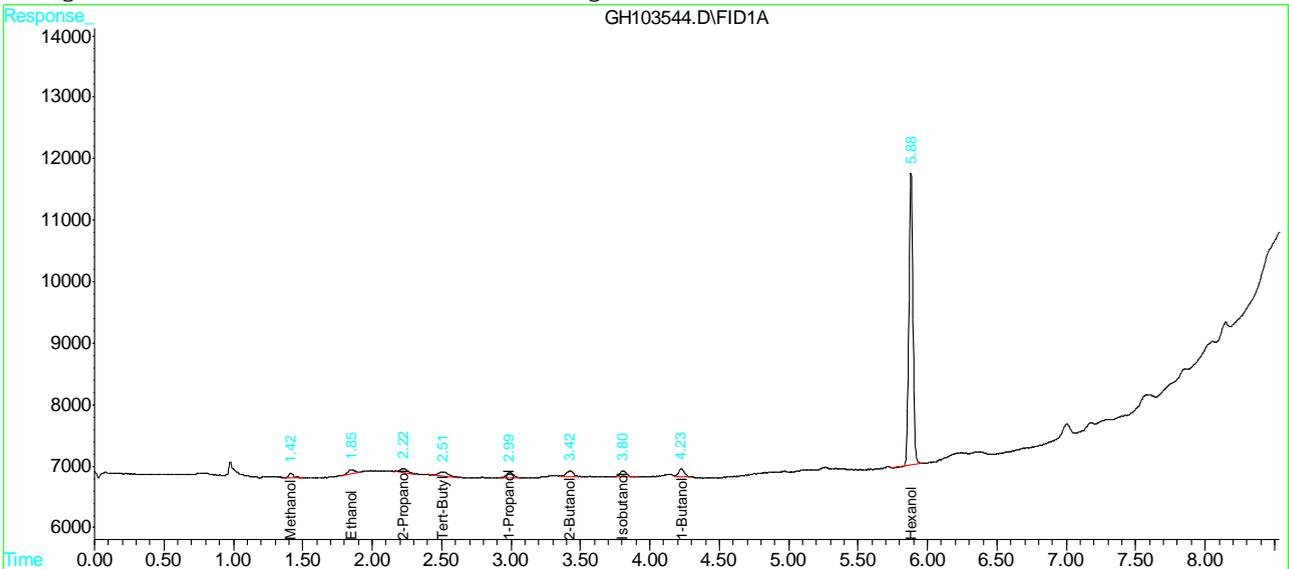
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 10:15 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:10:45 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.57 11

Manual Integration Approval Summary

Sample Number: GGH5193-IC5193 Method: SW846-8015C (DAI)
Lab FileID: GH103544.D Analyst approved: 03/01/16 13:28 Xu Liu
Injection Time: 02/29/16 12:23 Supervisor approved: 03/01/16 14:34 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethanol	64-17-5	1	1.85	Poorly defined baseline
Isopropyl Alcohol	67-63-0	1	2.22	Missed peak
n-Butyl Alcohol	71-36-3	2	3.18	Split peak

11.5.7.1

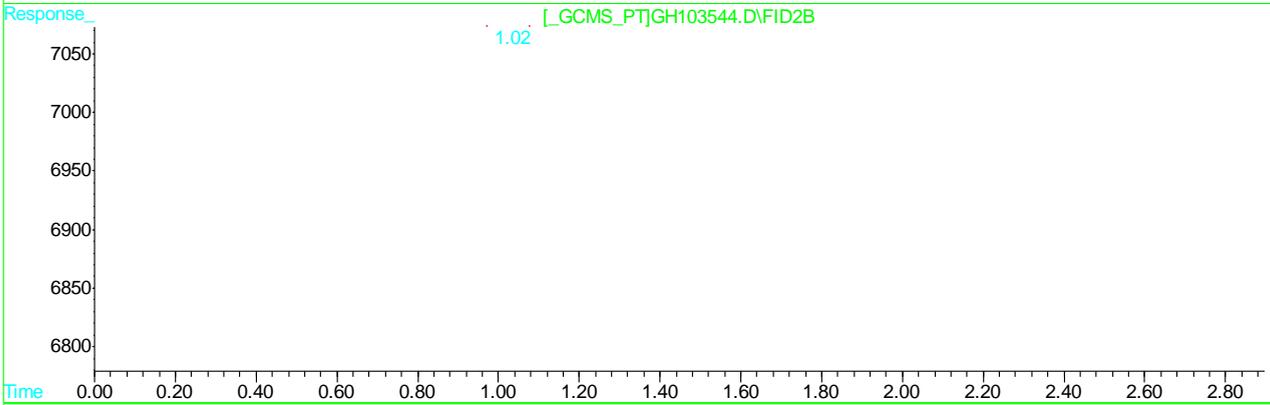
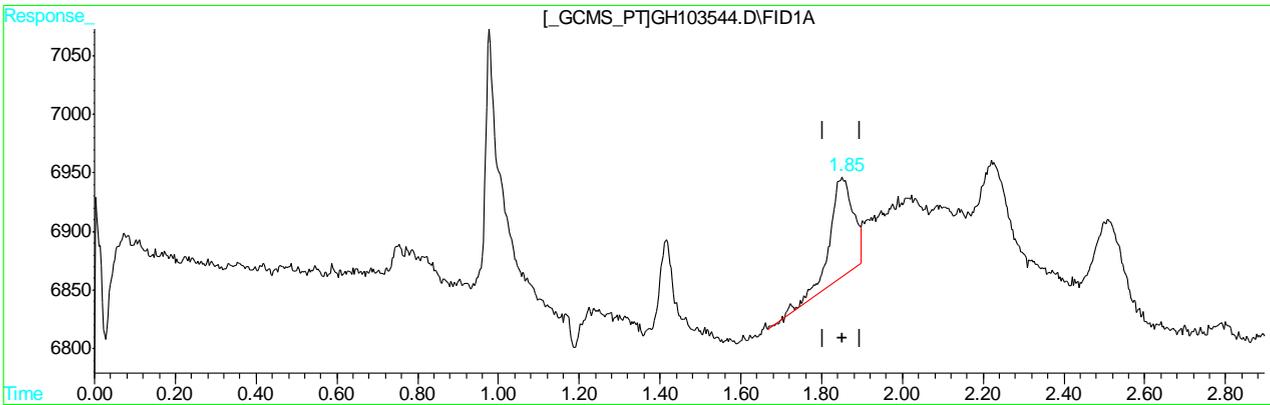
11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:12 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:12:38 2016
 Response via : Multiple Level Calibration



(2) Ethanol
 1.85min 138.711PPB
 response 3387

(2) Ethanol #2
 1.02min 99.470PPB
 response 2194

(+) = Expected Retention Time

GH103544.D MGH5193.M Tue Mar 01 08:18:52 2016 GCGH

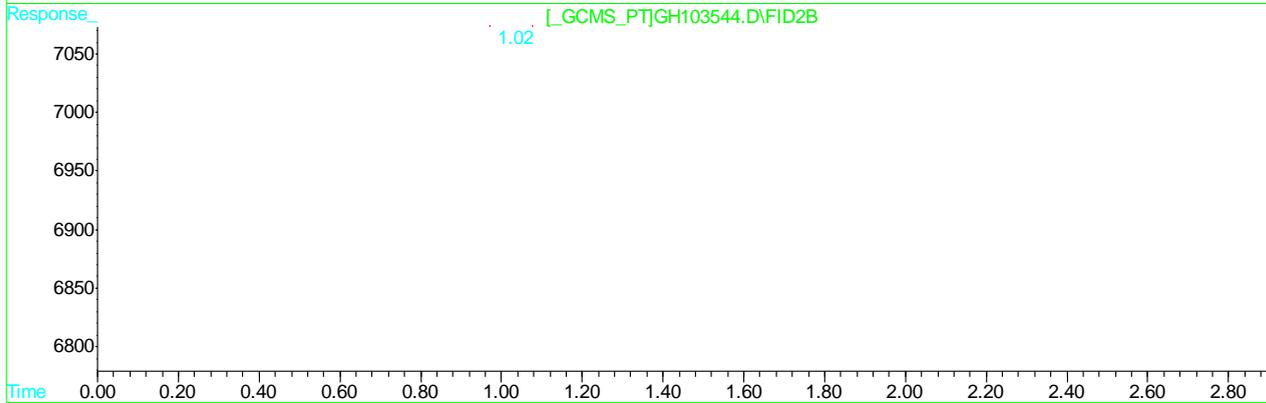
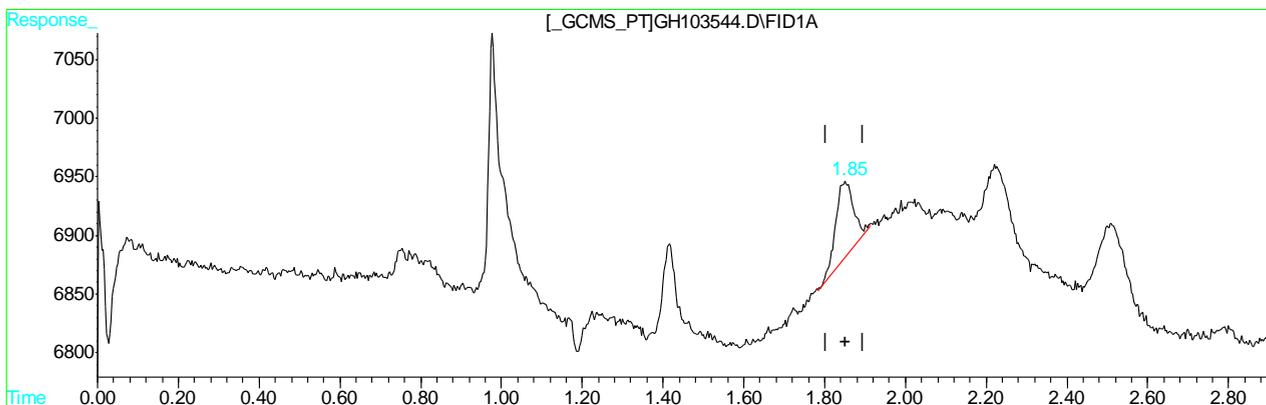
11.5.7.2
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:12 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:12:38 2016
 Response via : Multiple Level Calibration



(2) Ethanol
 1.85min 82.002PPB m
 response 2002

(2) Ethanol #2
 1.02min 99.470PPB
 response 2194

(+) = Expected Retention Time
 GH103544.D MGH5193.M Tue Mar 01 08:20:10 2016 GCGH

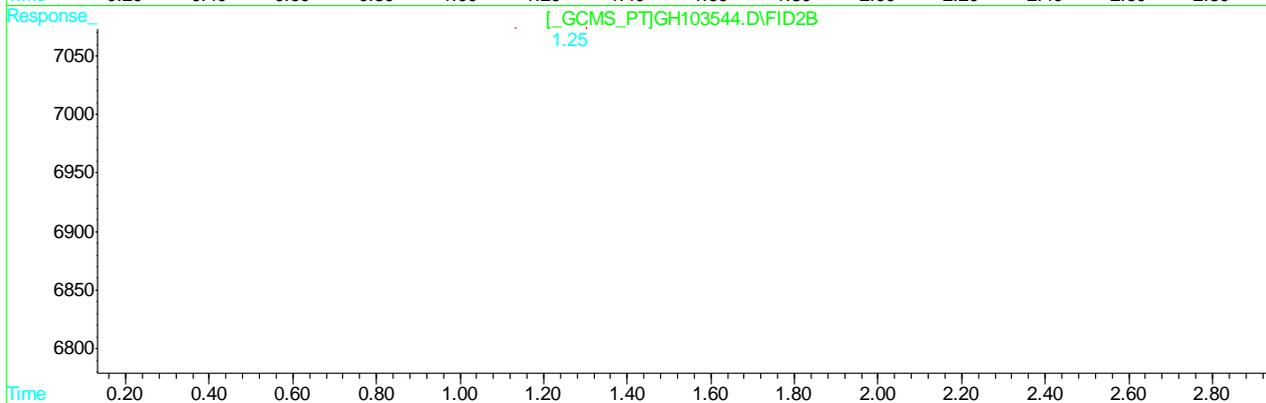
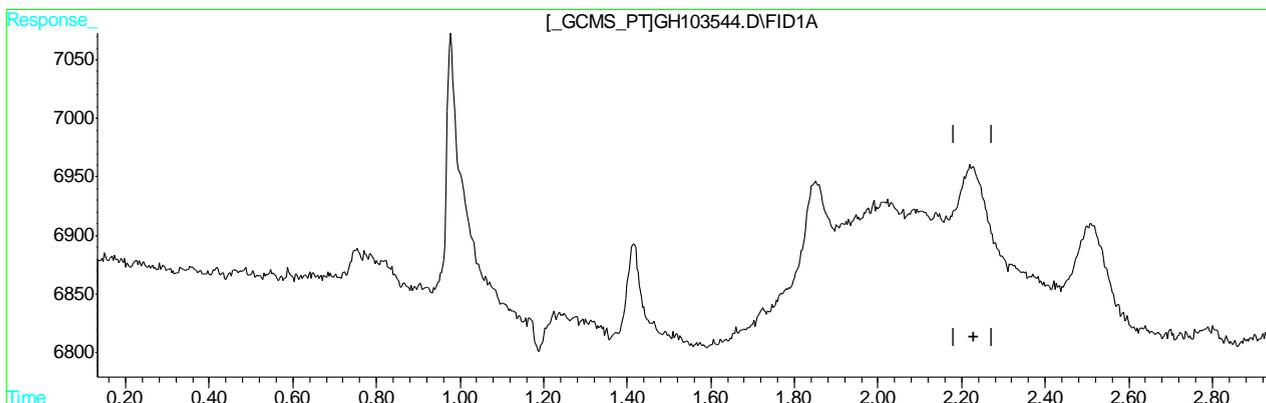
11.5.7.3
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:19 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:23:36 2016
 Response via : Multiple Level Calibration



(5) 2-Propanol
 0.00min 0.000PPB
 response 0

(5) 2-Propanol #2
 1.25min 106.098PPB
 response 2475

(+) = Expected Retention Time
 GH103544.D MGH5193.M Tue Mar 01 08:24:02 2016 GCGH

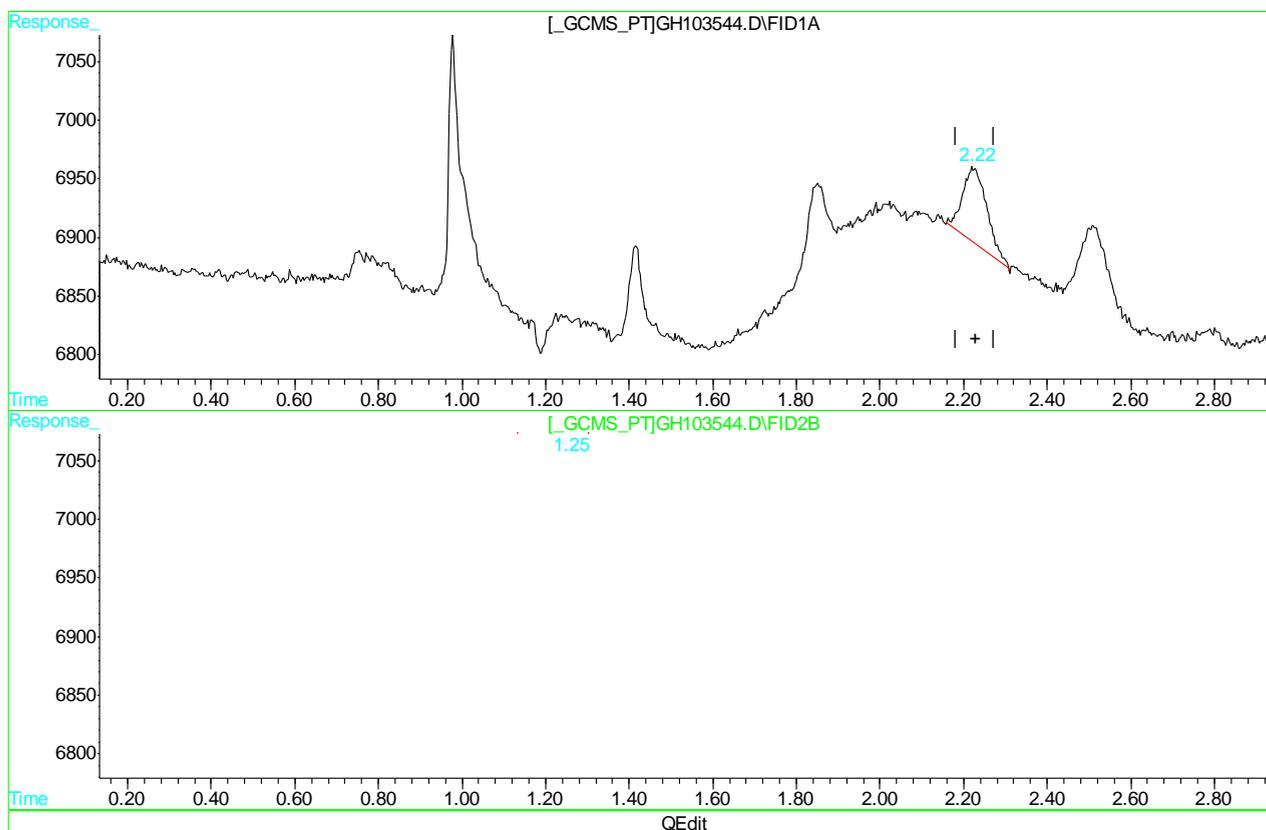
11.5.7.4
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:19 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:23:36 2016
 Response via : Multiple Level Calibration



(5) 2-Propanol
 2.22min 96.011PPB m
 response 2559

(5) 2-Propanol #2
 1.25min 106.098PPB
 response 2475

(+) = Expected Retention Time

GH103544.D MGH5193.M

Tue Mar 01 08:25:29 2016

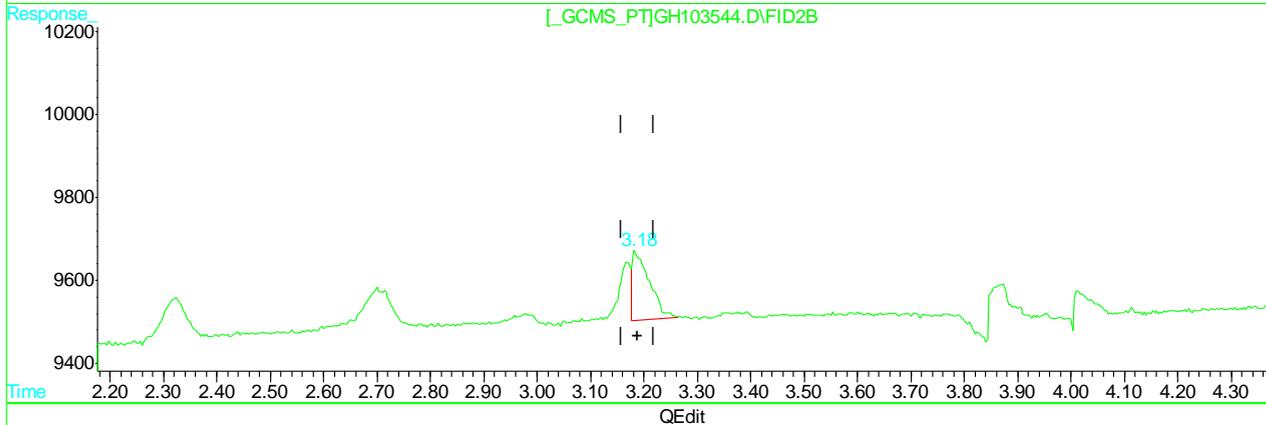
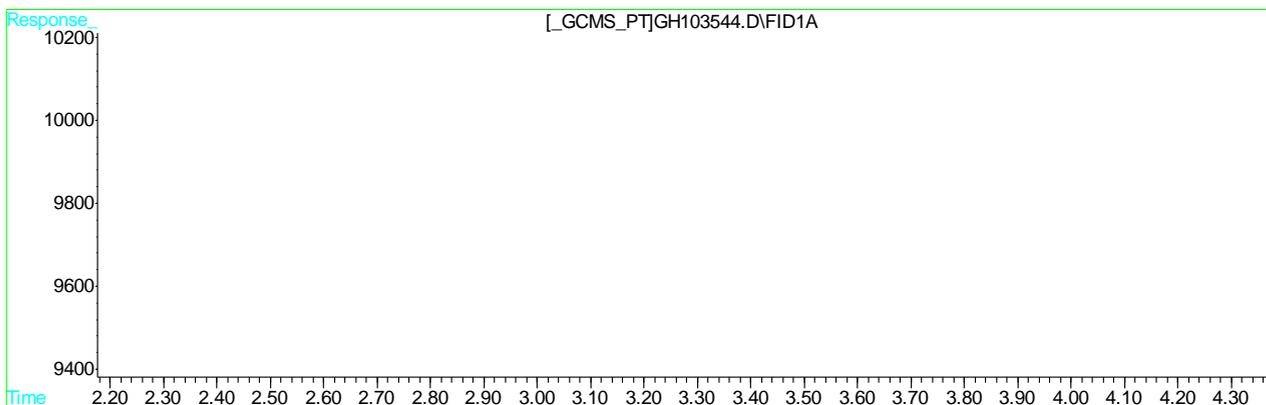
GCGH

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:25 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:26:22 2016
 Response via : Multiple Level Calibration



(8) 1-Butanol
 4.23min 116.654PPB
 response 3899

(8) 1-Butanol #2
 3.18min 104.373PPB
 response 3808

(+) = Expected Retention Time

GH103544.D MGH5193.M Tue Mar 01 10:15:45 2016 GCGH

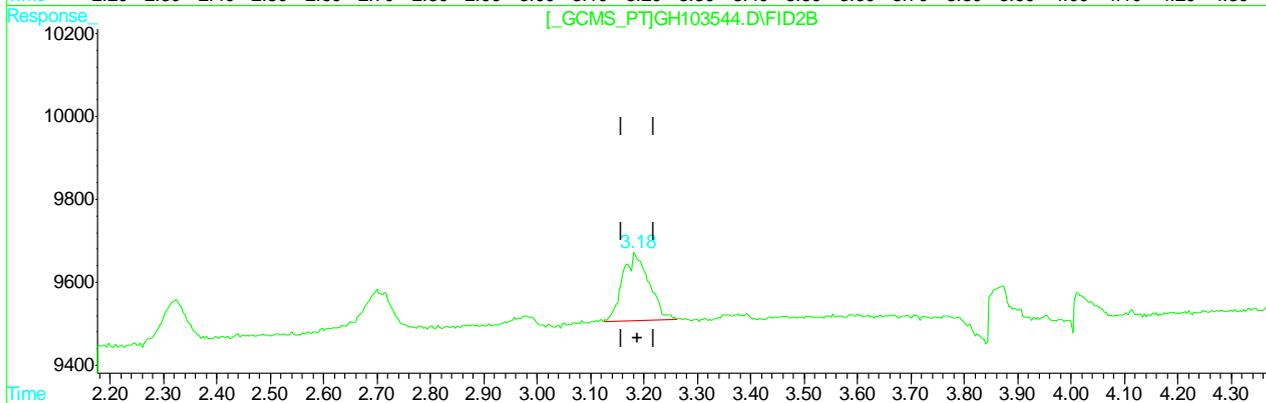
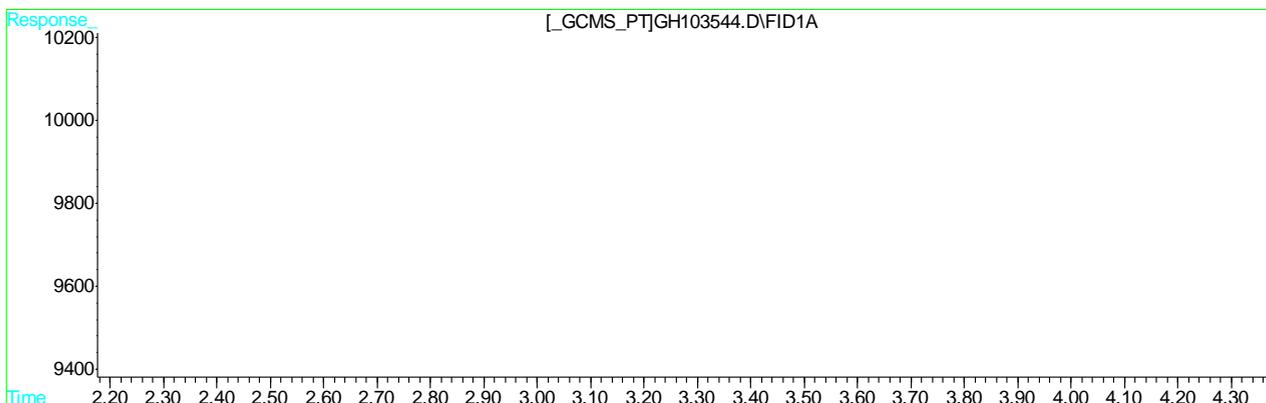
11.5.7.6
 11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
 Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
 Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
 Sample : IC5193-100 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 8:25 2016 Quant Results File: MGH5193.RES

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 08:26:22 2016
 Response via : Multiple Level Calibration



(8) 1-Butanol
 4.23min 116.654PPB
 response 3899

(8) 1-Butanol #2
 3.18min 155.884PPB m
 response 5688

(+) = Expected Retention Time
 GH103544.D MGH5193.M Tue Mar 01 10:15:55 2016 GCGH

11.5.7.7
 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
 Acq On : 29 Feb 2016 1:20 pm Operator: XULIU
 Sample : ICV5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
 Acq On : 29 Feb 2016 1:36 pm Operator: XULIU
 Sample : ICV5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 12:24 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 12:10:59 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.88	5.34	621339	605656	4871.651	4749.523
Spiked Amount	5000.000		Recovery	=	97.43%	94.99%
Target Compounds						
1) Methanol	1.42	0.80	89753	86850	5142.658	5001.679
2) Ethanol	1.85	1.02	118314	114631	5272.444	5195.921
3) Tert-Butyl Alcoh	2.51	1.47	175949	166701	5160.980	5211.888
4) 1-Propanol	2.99	1.77	154839	145777	5327.199	5070.941
5) 2-Propanol	2.23	1.25	126287	123170	5137.821	5279.569
7) Isobutanol	3.81	2.70	172809	165206	5106.756	5121.827
8) 1-Butanol	4.23	3.19	169085	164075	5058.564	4624.847
9) 2-Butanol	3.42	2.32	156041	147599	5081.800	5154.079

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103545.D MGH5193.M Tue Mar 01 12:24:50 2016 GCGH

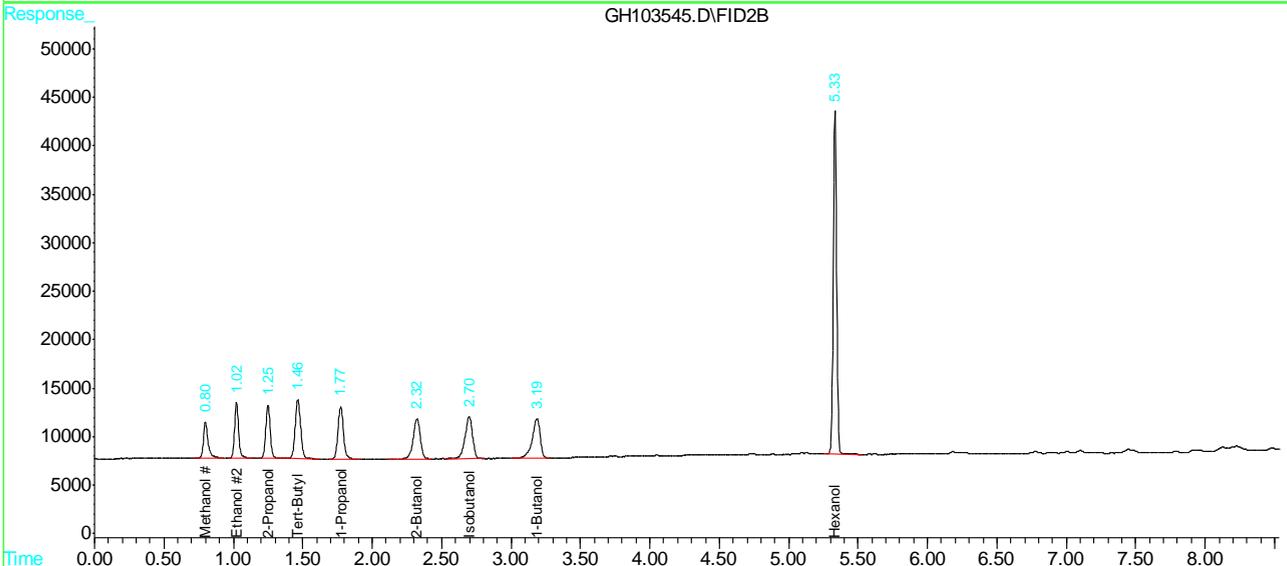
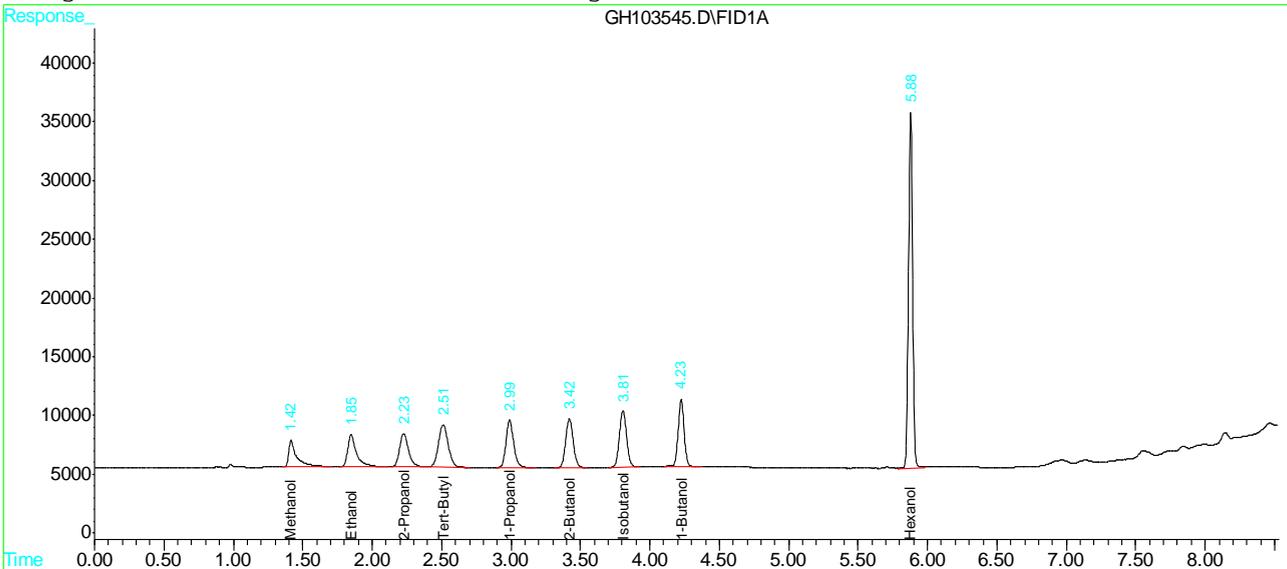
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
 Acq On : 29 Feb 2016 1:20 pm Operator: XULIU
 Sample : ICV5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
 Acq On : 29 Feb 2016 1:36 pm Operator: XULIU
 Sample : ICV5193-5000 Inst : GCGH
 Misc : GC47719,GGH5193,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 1 12:24 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Tue Mar 01 12:10:59 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID1A.CH Vial: 92
 Acq On : 17 Mar 2016 10:39 am Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID2B.CH Vial: 92
 Acq On : 17 Mar 2016 10:54 am Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:48:46 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.87	5.29	612866	646191	4805.221	5067.398
Spiked Amount	5000.000		Recovery	=	96.10%	101.35%
Target Compounds						
1) Methanol	1.40	0.78	78302	78281	4486.542	4508.229
2) Ethanol	1.83	1.00	113509	120573	5058.329	5465.251
3) Tert-Butyl Alcoh	2.50	1.43	184260	187029	5404.746	5847.439
4) 1-Propanol	2.97	1.74	155855	162099	5362.145	5638.694
5) 2-Propanol	2.21	1.22	128205	133206	5215.824	5709.744
7) Isobutanol	3.79	2.65	183935	195984	5435.556	6076.002
8) 1-Butanol	4.21	3.14	163599	177360	4894.442	4999.304
9) 2-Butanol	3.41	2.27	166651	165707	5427.326	5786.407

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103774.D MGH5193.M Thu Mar 17 12:59:19 2016 GCGH

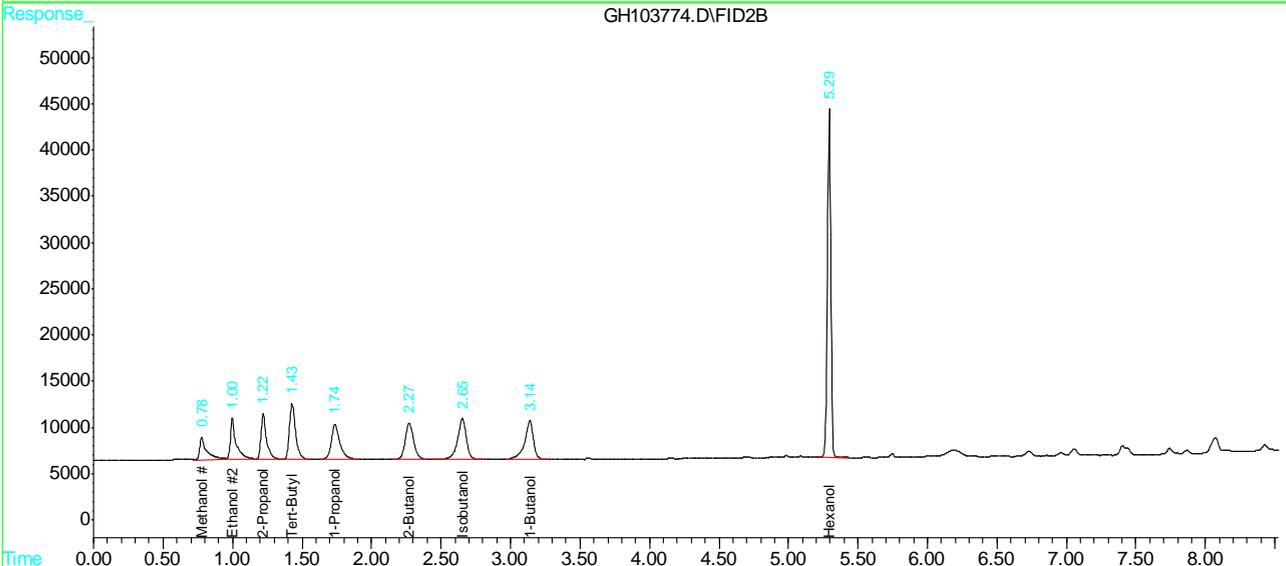
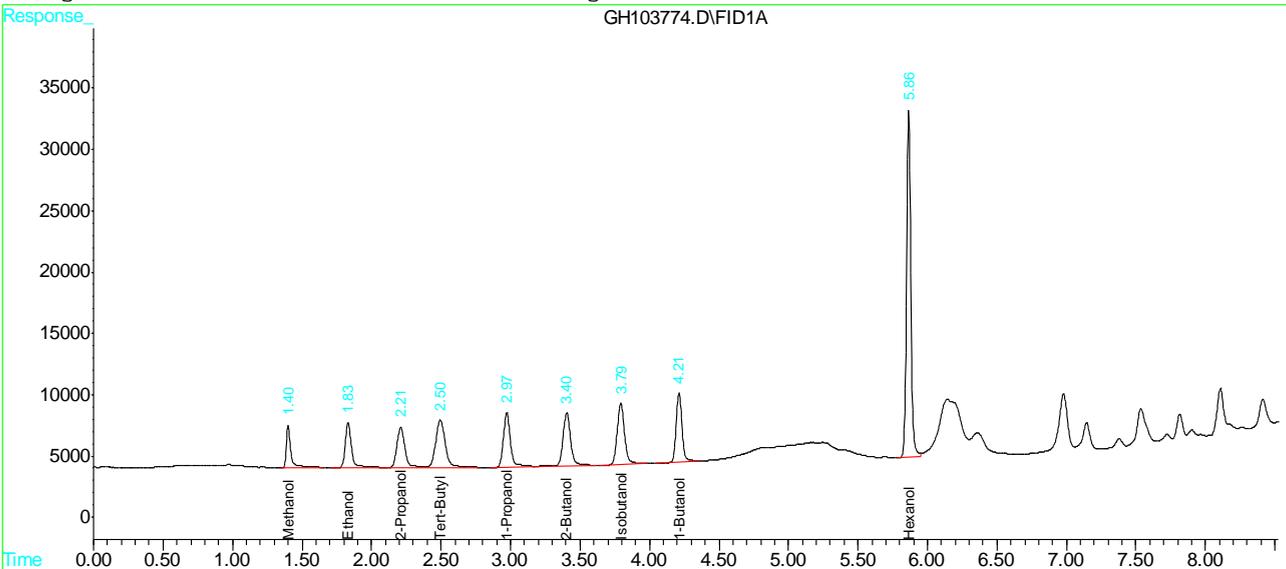
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID1A.CH Vial: 92
 Acq On : 17 Mar 2016 10:39 am Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID2B.CH Vial: 92
 Acq On : 17 Mar 2016 10:54 am Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 17 12:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 12:48:46 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



11.5.9
 11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID1A.CH Vial: 95
 Acq On : 17 Mar 2016 1:56 pm Operator: XULIU
 Sample : CC5193-10000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID2B.CH Vial: 95
 Acq On : 17 Mar 2016 2:11 pm Operator: XULIU
 Sample : CC5193-10000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:02 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:45:36 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.86	5.29	629806	661262	4938.039	5185.584
Spiked Amount	5000.000		Recovery	=	98.76%	103.71%
Target Compounds						
1) Methanol	1.40	0.78	152563	153170	8741.553	8821.050
2) Ethanol	1.83	1.00	205260	223257	9147.047	10119.633
3) Tert-Butyl Alcoh	2.50	1.43	314338	340447	9220.215	10644.067
4) 1-Propanol	2.97	1.73	280389	312315	9646.721	10864.050
5) 2-Propanol	2.21	1.22	215803	241908	8779.637	10369.142
7) Isobutanol	3.79	2.65	347810	347134	10278.295	10762.045
8) 1-Butanol	4.21	3.14	321796	327729	9627.266	9237.822
9) 2-Butanol	3.40	2.27	298832	295550	9732.046	10320.476

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103784.D MGH5193.M Fri Mar 18 08:02:15 2016 GCGH

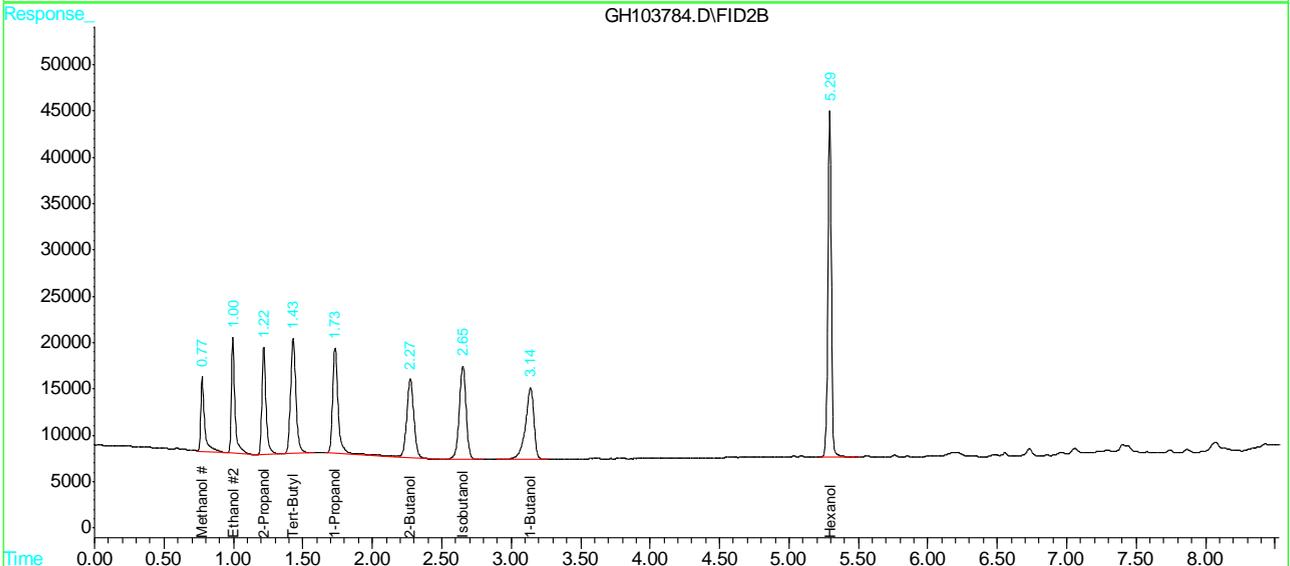
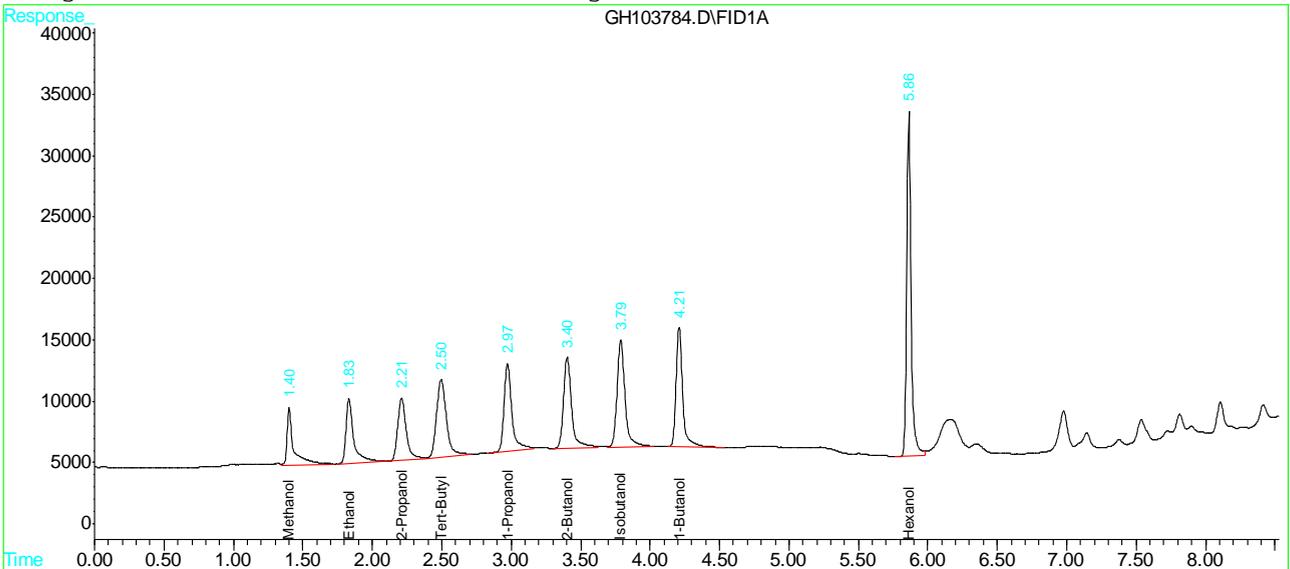
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID1A.CH Vial: 95
 Acq On : 17 Mar 2016 1:56 pm Operator: XULIU
 Sample : CC5193-10000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID2B.CH Vial: 95
 Acq On : 17 Mar 2016 2:11 pm Operator: XULIU
 Sample : CC5193-10000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:02 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:45:36 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID1A.CH Vial: 95
 Acq On : 17 Mar 2016 4:08 pm Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID2B.CH Vial: 95
 Acq On : 17 Mar 2016 4:23 pm Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:38 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Initial Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

System Monitoring Compounds						
10) S Hexanol	5.86	5.29	580261	632281	4549.577	4958.319
Spiked Amount	5000.000		Recovery	=	90.99%	99.17%
Target Compounds						
1) Methanol	1.40	0.78	70385	88305	4032.922	5085.511
2) Ethanol	1.83	1.00	107223	126386	4778.191	5728.742
3) Tert-Butyl Alcoh	2.50	1.43	181035	186500	5310.155	5830.899
4) 1-Propanol	2.97	1.73	163913	163713	5639.401	5694.859
5) 2-Propanol	2.21	1.22	117644	135207	4786.195	5795.500
7) Isobutanol	3.79	2.65	218004	186364	6442.336	5777.763
8) 1-Butanol	4.21	3.13	165107	188325	4939.555	5308.373
9) 2-Butanol	3.40	2.27	146481	170031	4770.435	5937.383

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
 GH103791.D MGH5193.M Fri Mar 18 08:38:12 2016 GCGH

11.5.11
 11

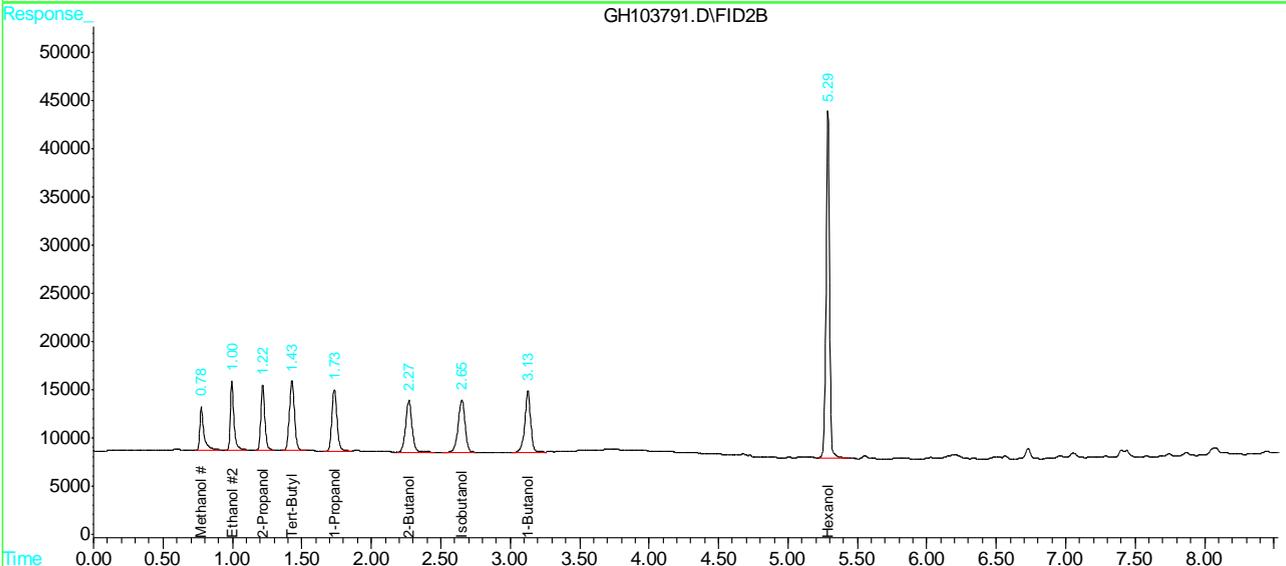
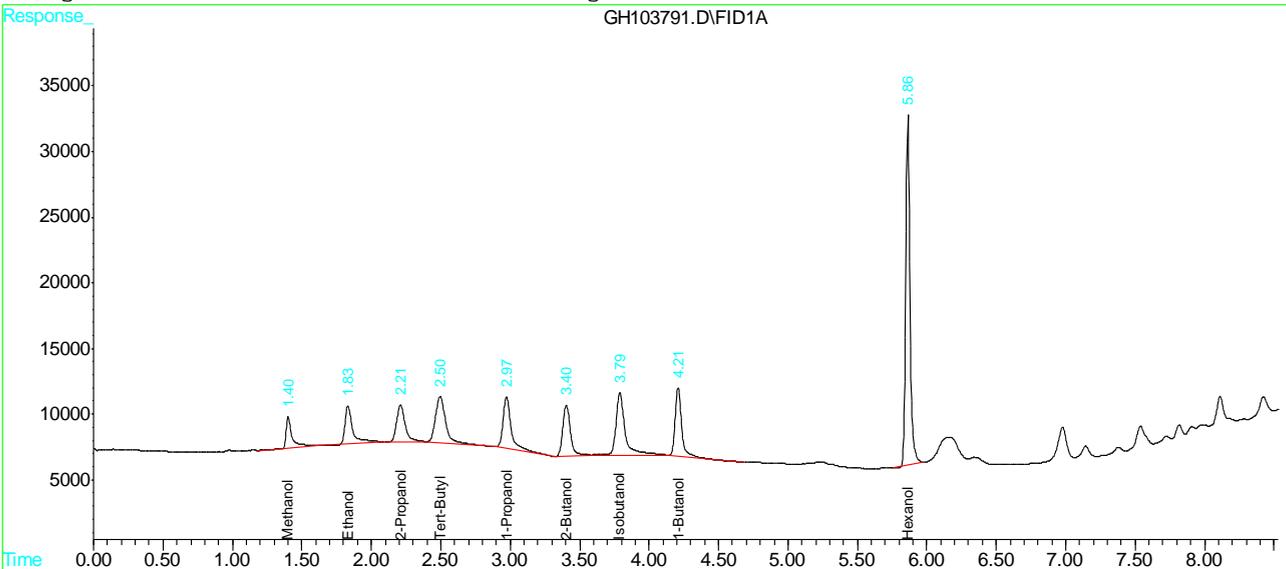
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID1A.CH Vial: 95
 Acq On : 17 Mar 2016 4:08 pm Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID2B.CH Vial: 95
 Acq On : 17 Mar 2016 4:23 pm Operator: XULIU
 Sample : CC5193-5000 Inst : GCGH
 Misc : GC47946,GGH5211,5.0,,,,,1 Multiplr: 1.00
 IntFile : autoint2.e
 Quant Time: Mar 18 8:38 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
 Title : METHOD SW846-8015C (DAI)
 Last Update : Thu Mar 17 15:47:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
 Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
 Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um



Batch ID: GH5193

Print Analyst Name: Xulin

Date: 2/28/16

Analyst Signature: [Signature]

Standard Data

Standard Data

Lot #	Description	Conc.

Lot #	Description	Conc.
21520417	ALL SUR (3/15)	2000 ppm
21520414	ALL (10) (3/15)	100 ppm
21520415	ALL (10) (3/15)	100 ppm

Columns: 2B640/RTX-1
(300M x 0.53 mm x 3um) (300M x 0.32 mm x 3um)

Method: SOI/SCACC

Initial Cal. Method: MCM5193

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]

Date: 3/2/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (m) or g	MOH amt. (ul)	Secondary dilution	LIS	ISU	Status (Data)	Comments	pH < 2
	GH103533	2B					1					OK		
	103534	2C5193-100					1					RR	2nd signal N6	
	103535	2C5193-500					1					RR	1st signal N6	
	103536	2C5193-1000					1					OK	100ul STD, 2ul sur/1ml d20	
	103537	2C5193-5000					1					RR	1st signal N6	
	103538	2C5193-10,000					1					OK	100ul STD, 2.5ul sur/1ml d20	
	103539	2C5193-50,000					1					OK	100ul STD, 3ul sur/1ml d20	
	103540	2C5193-100,000					1					OK	100ul STD, 4ul sur/1ml d20	
	103541	2C5193-5000					1					OK	100ul STD, 2.5ul sur/1ml d20	
	103542	2C5193-100					1					RR	1st signal N6	
	103543	2C5193-500					1					OK	5ul STD, 1ul sur/1ml d20	
	103544	2C5193-100					1					OK	10ul STD, 4ul sur/10ml d20	
	103545	2C5193-1000					1					OK	50ul STD 12/1ml d20	

[Signature] 2/28

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

173

Form: OR001-9
Rev. Date: 2/14/2007

11.6.1 11



VOLATILE ANALYSIS LOG

Batch ID: GH5211

Date: 3/17/16

Print Analyst Name: Xu Gu

Standard Data

Standard Data

Lot #	Description	Conc.

Lot #	Description	Conc.
0520413	Acc Sur (3/25)	2000ppm
0520414	Acc (10) (3/25)	600ppm
0520415	Acc Sur (3/25)	1000ppm

Analyst Signature: [Signature]

Columns: ZB6WC / RTX-1
(3mmx0.5mmx3um) (3mmx0.52mmx3um)

Method AOI SCACC

Initial Cal. Method MGL5193

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 3/17/16

R	Data File	Sample ID	Test	M T X	Vial #	ALS #	Samp. Amt (m or g)	MOH amt. (ul)	Secondary dilution	L +	I S	S U	Status (Data)	Comments	pH* < 2
	GH103774	CC5193-5000											OK	sup 150 / ml d20	
	103775	MB1											OK		
	103776	PBS											OK	sup 150 cc / ml d20	
	103777	JC15796-1	47904 CMA	6	22								OK		
	103778	JC15796-1MS		6	22								OK	sup 150 cc / ml sample	
	103779	JC15796-1MSD		6	22								OK	sup 150 cc / ml sample	
	103780	JC15796-2		6	7								OK		
	103781	JC16231-1A	47946 CMA	6	17								OK		
	103782	JC16231-2A	TRSA	6	17								OK		
	103783	JC16231-3A		6	17								OK		
	103784	CC5193-10,000											OK	10000 / ml d20	
	103785	MB2											OK		
	103786	JC15796-3	47904 CMA	6	8								OK		
	103787	JC15796-4		6	3								OK		
	103788	JC16038-10	47921 CMA	6	6								OK		
	103789	JC16038-8		6	6								OK		
	103790	JC16038-7		6	7								OK		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

217

11.6.2 11



VOLATILE ANALYSIS LOG

Batch ID: GGH5211

Date: 3/17/16

Print Analyst Name: Xa Liu

Standard Data

Standard Data

Lot #	Description	Conc.

Lot #	Description	Conc.

Analyst Signature: [Signature]

Columns: ZB6WC RTX-1
(30m x 0.5mm x 3um) (30m x 0.25mm x 3um)

Method: GC/MS ACC

Initial Cal. Method: MC45193

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 3/18/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ul or g)	MOH amt. (ul)	Secondary dilution	LIS	ISU	Status (Data)	Comments	pH < 2
	GGH103791	CC5193-5000					1					OK	residual/multires	
	103792	MR3	3/18				1					OK		
	103793	Jc16038-6	47921	W			1					OK		✓
	103794	Jc16038-5		W			1					OK		✓
	103795	Jc16038-4		W			1					OK		✓
	103796	Jc16038-3		W			1					OK		✓
	103797	Jc16038-2		W			1					OK		✓
	103798	Jc16038-1		W			1					OK		✓
	103799	Jc16038-9	47921	W			1					OK		✓
	103800	CC5193-10,000					1					OK	residual/multires	
(X) 3/17														

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

219

11.6.2 11

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92024-MB1	4G66280.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744

The QC reported here applies to the following samples:

Method: SW846 8081B

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.010	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0049	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0047	ug/l	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	139%* a	26-132%
877-09-8	Tetrachloro-m-xylene	138%* a	26-132%
2051-24-3	Decachlorobiphenyl	158%* a	10-118%
2051-24-3	Decachlorobiphenyl	154%* a	10-118%

(a) High percent recoveries and no positive found in the QC batch.

Blank Spike Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92024-BS1	4G66281.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744

The QC reported here applies to the following samples:

Method: SW846 8081B

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
319-85-7	beta-BHC	0.25	0.28	112	55-137
72-54-8	4,4'-DDD	0.25	0.28	112	46-151
50-29-3	4,4'-DDT	0.25	0.35	140	53-158

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	107%	26-132%
877-09-8	Tetrachloro-m-xylene	112%	26-132%
2051-24-3	Decachlorobiphenyl	129%* a	10-118%
2051-24-3	Decachlorobiphenyl	133%* a	10-118%

(a) High percent recoveries and no positive found in the QC batch.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92024-MS	4G66282.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744
OP92024-MSD	4G66283.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744
JC15796-1	4G66284.D	1	03/20/16	BP	03/13/16	OP92024	G4G1744

The QC reported here applies to the following samples:

Method: SW846 8081B

JC15796-1, JC15796-2, JC15796-3

CAS No.	Compound	JC15796-1 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
319-85-7	beta-BHC	ND	0.25	0.31	124	0.25	0.34	136	9	46-151/36
72-54-8	4,4'-DDD	ND	0.25	0.35	140	0.25	0.41	164* a	16	40-161/36
50-29-3	4,4'-DDT	ND	0.25	0.41	164* a	0.25	0.48	192* a	16	41-173/33

CAS No.	Surrogate Recoveries	MS	MSD	JC15796-1	Limits
877-09-8	Tetrachloro-m-xylene	106%	126%* a	123%	26-132%
877-09-8	Tetrachloro-m-xylene	103%	123%* a	119%	26-132%
2051-24-3	Decachlorobiphenyl	147%* a	180%* a	170%* b	10-118%
2051-24-3	Decachlorobiphenyl	138%* a	167%* a	156%* b	10-118%

- (a) Outside the QC limits.
- (b) High percent recoveries and no positive found in the sample.

* = Outside of Control Limits.

12.3.1
 12

Semivolatiles Internal Standard Area Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	Injection Date:	03/20/16
Lab File ID:	4G66275.D	Injection Time:	09:52
Instrument ID:	GC4G	Method:	SW846 8081B

IS 1		IS 2	
AREA	RT	AREA	RT

Check Std	236457038	2.22	246493581	2.05
Upper Limit ^a	472914076	2.72	492987162	2.55
Lower Limit ^b	118228519	1.72	123246791	1.55

Lab Sample ID	IS 1		IS 2	
	AREA	RT	AREA	RT
OP92108-MB1	225107588	2.21	210791933	2.06
OP92108-BS1	235048145	2.22	255334871	2.06
OP92108-BSD ^c	230603644	2.22	255311381	2.06
OP92024-MB1	197415125	2.22	196725687	2.06
OP92024-BS1	206579691	2.22	215915422	2.06
OP92024-MS	202461671	2.22	191927475	2.05
OP92024-MSD	199002413	2.22	188863490	2.06
JC15796-1	202569405	2.22	190190227	2.06
JC15796-2	229108692	2.22	246744196	2.05
JC15796-3	208427053	2.22	216933288	2.06
ZZZZZZ	230070332	2.22	255468391	2.06
ZZZZZZ	231595093	2.22	234685663	2.06
ZZZZZZ	246243768	2.22	272022625	2.06

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
 IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
- (c) corr-raw data

12.4.1
12

DDT/Endrin Breakdown Check

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	G4G1741-DDT	Injection Date:	03/18/16
Lab File ID:	4G66169.D	Injection Time:	17:45
Instrument ID:	GC4G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	8385130	7051784
4,4'-DDE	2634401	2876000
4,4'-DDT	388085703	362278732

DDT Breakdown ^a	2.8 %	2.7 %
----------------------------	-------	-------

Endrin aldehyde	4194694	3242234
Endrin ketone	9829510	10057782
Endrin	241790714	214367380

Endrin Breakdown ^b	5.5 %	5.8 %
-------------------------------	-------	-------

(a) Calculated as: $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G4G1741-IC1741	4G66171.D	03/18/16	18:14	00:29	Initial cal 1
G4G1741-IC1741	4G66172.D	03/18/16	18:29	00:44	Initial cal 2
G4G1741-IC1741	4G66173.D	03/18/16	18:44	00:59	Initial cal 5
G4G1741-IC1741	4G66174.D	03/18/16	18:58	01:13	Initial cal 10
G4G1741-ICC1741	4G66175.D	03/18/16	19:13	01:28	Initial cal 25
G4G1741-IC1741	4G66176.D	03/18/16	19:28	01:43	Initial cal 50
G4G1741-IC1741	4G66178.D	03/18/16	19:57	02:12	Initial cal 100
G4G1741-IC1741	4G66179.D	03/18/16	20:12	02:27	Initial cal 500
G4G1741-IC1741	4G66180.D	03/18/16	20:26	02:41	Initial cal 500
G4G1741-ICV1741	4G66181.D	03/18/16	20:41	02:56	Initial cal verification 25
G4G1741-ICV1741	4G66182.D	03/18/16	20:56	03:11	Initial cal verification 25
G4G1741-ICV1741	4G66183.D	03/18/16	21:10	03:25	Initial cal verification 500
G4G1741-ICV1741	4G66184.D	03/18/16	21:25	03:40	Initial cal verification 500
G4G1742-CC1741	4G66186.D	03/18/16	21:40	03:55	Continuing cal 25
OP92019-LB36	4G66193.D	03/18/16	22:09	04:24	Leachate Blank
ZZZZZZ	4G66188.D	03/18/16	22:24	04:39	(unrelated sample)
ZZZZZZ	4G66189.D	03/18/16	22:39	04:54	(unrelated sample)
ZZZZZZ	4G66191.D	03/18/16	23:08	05:23	(unrelated sample)
ZZZZZZ	4G66192.D	03/18/16	23:23	05:38	(unrelated sample)
OP92028-MS	4G66194.D	03/18/16	23:37	05:52	Matrix Spike
OP92028-LS20	4G66194.D	03/18/16	23:37	05:52	Leachate Spike
OP92028-MSD	4G66195.D	03/18/16	23:52	06:07	Matrix Spike Duplicate
ZZZZZZ	4G66196.D	03/19/16	00:07	06:22	(unrelated sample)
ZZZZZZ	4G66197.D	03/19/16	00:22	06:37	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	G4G1741-DDT	Injection Date:	03/18/16
Lab File ID:	4G66169.D	Injection Time:	17:45
Instrument ID:	GC4G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	4G66198.D	03/19/16	00:36	06:51	(unrelated sample)
JC15881-9A	4G66199.D	03/19/16	00:51	07:06	(used for QC only; not part of job JC15796)
ZZZZZZ	4G66200.D	03/19/16	01:06	07:21	(unrelated sample)
ZZZZZZ	4G66201.D	03/19/16	01:20	07:35	(unrelated sample)
ZZZZZZ	4G66202.D	03/19/16	01:35	07:50	(unrelated sample)
ZZZZZZ	4G66203.D	03/19/16	01:50	08:05	(unrelated sample)
ZZZZZZ	4G66204.D	03/19/16	02:04	08:19	(unrelated sample)
ZZZZZZ	4G66205.D	03/19/16	02:19	08:34	(unrelated sample)
ZZZZZZ	4G66206.D	03/19/16	02:34	08:49	(unrelated sample)
G4G1742-CC1741	4G66207.D	03/19/16	02:48	09:03	Continuing cal 50
ZZZZZZ	4G66209.D	03/19/16	03:18	09:33	(unrelated sample)
ZZZZZZ	4G66210.D	03/19/16	03:32	09:47	(unrelated sample)
ZZZZZZ	4G66211.D	03/19/16	03:47	10:02	(unrelated sample)
ZZZZZZ	4G66212.D	03/19/16	04:02	10:17	(unrelated sample)
ZZZZZZ	4G66213.D	03/19/16	04:17	10:32	(unrelated sample)
JC15640-1A	4G66214.D	03/19/16	04:31	10:46	(used for QC only; not part of job JC15796)
ZZZZZZ	4G66215.D	03/19/16	04:46	11:01	(unrelated sample)
ZZZZZZ	4G66216.D	03/19/16	05:01	11:16	(unrelated sample)
ZZZZZZ	4G66217.D	03/19/16	05:15	11:30	(unrelated sample)
ZZZZZZ	4G66218.D	03/19/16	05:30	11:45	(unrelated sample)

12.5.1
12

DDT/Endrin Breakdown Check

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample:	G4G1744-DDT	Injection Date:	03/20/16
Lab File ID:	4G66274.D	Injection Time:	09:37
Instrument ID:	GC4G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	6344809	6714785
4,4'-DDE	903254	2083500
4,4'-DDT	457320174	435069507

DDT Breakdown ^a	1.6 %	2 %
----------------------------	-------	-----

Endrin aldehyde	2402385	24769543
Endrin ketone	10232675	11871944
Endrin	258818337	241585590

Endrin Breakdown ^b	4.7 %	13.2 %
-------------------------------	-------	--------

(a) Calculated as: $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G4G1744-CC1741	4G66275.D	03/20/16	09:52	00:15	Continuing cal 50
OP92108-MB1	4G66277.D	03/20/16	10:54	01:17	Method Blank
OP92108-BS1	4G66278.D	03/20/16	11:09	01:32	Blank Spike
OP92108-BSD	4G66279.D	03/20/16	11:23	01:46	Blank Spike Duplicate
OP92024-MB1	4G66280.D	03/20/16	11:38	02:01	Method Blank
OP92024-BS1	4G66281.D	03/20/16	11:53	02:16	Blank Spike
OP92024-MS	4G66282.D	03/20/16	12:07	02:30	Matrix Spike
OP92024-MSD	4G66283.D	03/20/16	12:22	02:45	Matrix Spike Duplicate
JC15796-1	4G66284.D	03/20/16	12:37	03:00	S-29R
JC15796-2	4G66285.D	03/20/16	12:52	03:15	S-31R(2)
JC15796-3	4G66286.D	03/20/16	13:06	03:29	EB030716
ZZZZZZ	4G66287.D	03/20/16	13:21	03:44	(unrelated sample)
ZZZZZZ	4G66288.D	03/20/16	13:36	03:59	(unrelated sample)
ZZZZZZ	4G66289.D	03/20/16	13:50	04:13	(unrelated sample)

GC Identification Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	Injection Date:	03/20/16
Lab File ID:	4G66275.D	Injection Time:	09:52
Instrument ID:	GC4G	Method:	SW846 8081B

Sample ID:	OP92024-BS1	Injection Date:	03/20/16
Lab File ID:	4G66281.D	Injection Time:	11:53
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
beta-BHC	1 ^a	3.42	3.41	0.28		ug/l	19.4
beta-BHC	2	4.14	4.14	0.34		ug/l	
4,4'-DDD	1 ^a	6.16	6.14	0.28		ug/l	6.9
4,4'-DDD	2	7.63	7.63	0.30		ug/l	
4,4'-DDT	1 ^a	6.56	6.55	0.35		ug/l	2.8
4,4'-DDT	2	8.16	8.16	0.36		ug/l	

(a) QC results reported from this column.

12.6.1
12

GC Identification Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	Injection Date:	03/20/16
Lab File ID:	4G66275.D	Injection Time:	09:52
Instrument ID:	GC4G	Method:	SW846 8081B

Sample ID:	OP92024-MS	Injection Date:	03/20/16
Lab File ID:	4G66282.D	Injection Time:	12:07
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
beta-BHC	1 ^a	3.40	3.41	0.31		ug/l	14.9
beta-BHC	2	4.14	4.14	0.36		ug/l	
4,4'-DDD	1 ^a	6.14	6.14	0.35		ug/l	15.4
4,4'-DDD	2	7.63	7.63	0.30		ug/l	
4,4'-DDT	1 ^a	6.55	6.55	0.41		ug/l	4.8
4,4'-DDT	2	8.16	8.16	0.43		ug/l	

(a) QC results reported from this column.

12.6.2
12

GC Identification Summary

Job Number: JC15796
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	Injection Date:	03/20/16
Lab File ID:	4G66275.D	Injection Time:	09:52
Instrument ID:	GC4G	Method:	SW846 8081B

Sample ID:	OP92024-MSD	Injection Date:	03/20/16
Lab File ID:	4G66283.D	Injection Time:	12:22
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
beta-BHC	1 ^a	3.41	3.41	0.34		ug/l	13.7
beta-BHC	2	4.14	4.14	0.39		ug/l	
4,4'-DDD	1 ^a	6.14	6.14	0.41		ug/l	15.8
4,4'-DDD	2	7.62	7.63	0.35		ug/l	
4,4'-DDT	1 ^a	6.55	6.55	0.48		ug/l	4.1
4,4'-DDT	2	8.16	8.16	0.50		ug/l	

(a) QC results reported from this column.

12.6.3
12

Semivolatile Surrogate Recovery Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Method: SW846 8081B	Matrix: AQ
---------------------	------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC15796-1	4G66284.D	123	119	170* ^c	156* ^c
JC15796-2	4G66285.D	92	105	115	122* ^c
JC15796-3	4G66286.D	110	116	84	89
OP92024-BS1	4G66281.D	107	112	129* ^d	133* ^d
OP92024-MB1	4G66280.D	139* ^d	138* ^d	158* ^d	154* ^d
OP92024-MS	4G66282.D	106	103	147* ^e	138* ^e
OP92024-MSD	4G66283.D	126* ^e	123* ^e	180* ^e	167* ^e

Surrogate Compounds Recovery Limits

S1 = Tetrachloro-m-xylene 26-132%
 S2 = Decachlorobiphenyl 10-118%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) High percent recoveries and no positive found in the sample.
- (d) High percent recoveries and no positive found in the QC batch.
- (e) Outside the QC limits.

12.7.1
12

GC Surrogate Retention Time Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	Injection Date:	03/20/16
Lab File ID:	4G66275.D	Injection Time:	09:52
Instrument ID:	GC4G	Method:	SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.59	3.00	9.81	11.22

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP92108-MB1	4G66277.D	03/20/16	10:54	2.61	2.99	9.83	11.23
OP92108-BS1	4G66278.D	03/20/16	11:09	2.60	3.00	9.81	11.23
OP92108-BSD	4G66279.D	03/20/16	11:23	2.60	3.00	9.81	11.22
OP92024-MB1	4G66280.D	03/20/16	11:38	2.60	3.00	9.81	11.22
OP92024-BS1	4G66281.D	03/20/16	11:53	2.60	3.00	9.81	11.22
OP92024-MS	4G66282.D	03/20/16	12:07	2.60	3.00	9.81	11.22
OP92024-MSD	4G66283.D	03/20/16	12:22	2.60	3.00	9.81	11.22
JC15796-1	4G66284.D	03/20/16	12:37	2.60	3.00	9.81	11.22
JC15796-2	4G66285.D	03/20/16	12:52	2.60	3.00	9.81	11.22
JC15796-3	4G66286.D	03/20/16	13:06	2.60	3.00	9.81	11.22
ZZZZZZ	4G66287.D	03/20/16	13:21	2.60	3.00	9.81	11.22
ZZZZZZ	4G66288.D	03/20/16	13:36	2.60	3.00	9.81	11.22
ZZZZZZ	4G66289.D	03/20/16	13:50	2.60	3.00	9.81	11.22

Surrogate Compounds

S1 = Tetrachloro-m-xylene
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.8.1
12

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1741-ICC1741
 Lab FileID: 4G66175.D

Response Factor Report GC4G

Method : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration

Calibration Files

2 =4g66172.D 5 =4g66173.D 10 =4g66174.D 25 =4g66175.D
 50 =4g66176.D 100 =4g66178.D 1 =4g66171.D

Compound	2	5	10	25	50	100	1	Avg	%RSD
-----ISTD-----									
1) I 1-bromo-2-nitrobenzen									
2) SAbTetrachloro-m-xyl	0.906	0.953	0.975	0.949	1.018	1.019	1.022	0.977	4.56
3) A alpha-BHC	1.226	1.254	1.275	1.321	1.426	1.469	1.203	1.310	7.74
4) MAgamma-BHC	1.145	1.124	1.129	1.162	1.252	1.290	1.139	1.177	5.62
5) MAHeptachlor	1.064	1.055	1.080	1.137	1.223	1.271	1.156	1.141	7.24
6) B beta-BHC	0.585	0.630	0.604	0.595	0.612	0.603	0.546	0.596	4.38
7) B delta-BHC	1.115	1.068	1.077	1.109	1.190	1.232	1.103	1.128	5.38
8) MBAldrin	1.097	1.085	1.149	1.148	1.237	1.265	1.150	1.162	5.75
9) B Heptachlor Epoxid	1.060	1.028	1.036	1.064	1.129	1.142	1.109	1.081	4.19
10) B gamma-Chlordane	1.009	0.984	1.018	1.048	1.124	1.158	1.105	1.064	6.17
11) B alpha-Chlordane	1.011	0.952	1.003	1.030	1.096	1.122	1.135	1.050	6.51
12) A Endosulfan I	1.033	1.021	1.071	1.104	1.175	1.197	1.037	1.091	6.49
13) B 4,4'-DDE	0.869	0.779	0.817	0.851	0.935	0.986	0.927	0.881	8.21
14) MADieldrin	1.010	0.967	1.001	1.050	1.141	1.192	1.133	1.071	7.92
15) MAEndrin	0.873	0.874	0.892	0.931	1.014	1.047	0.943	0.939	7.29
16) A 4,4'-DDD	0.660	0.701	0.759	0.781	0.848	0.887	0.711	0.764	10.69
17) B Endosulfan II	0.864	0.852	0.894	0.916	0.994	1.034	0.900	0.922	7.32
18) MA4,4'-DDT	0.329	0.418	0.482	0.563	0.672	0.762	0.385	0.516	30.61

---- Quadratic regression ---- Coefficient = 0.9997									
Response Ratio = -0.01401 + 0.57302 *A + 0.09838 *A^2									
19) B Endrin Aldehyde	0.692	0.707	0.757	0.779	0.857	0.875	0.725	0.770	9.34
20) B Endosulfan Sulfat	0.696	0.706	0.735	0.777	0.846	0.912	0.681	0.765	11.27
21) A Methoxychlor	0.237	0.246	0.276	0.303	0.346	0.372	0.306	0.298	16.67
22) Mirex	0.763	0.736	0.758	0.749	0.790	0.836	0.818	0.778	4.78
23) B Endrin Ketone	0.788	0.799	0.855	0.921	1.007	1.044	0.840	0.894	11.23
24) SAdecachlorobipheny	0.958	0.966	0.970	0.971	1.005	0.999	1.137	1.001	6.24
-----ISTD-----									
25) I 1-bromo-2-nitrobenzen									
26) L8Toxaphene{A}					0.041		0.041		0.00
27) L8Toxaphene{B}					0.040		0.040		0.00
28) L8Toxaphene{C}					0.035		0.035		0.00
29) L8Toxaphene{D}					0.032		0.032		0.00
30) L8Toxaphene{E}					0.025		0.025		0.00
-----ISTD-----									
31) I 1-bromo-2-nitrobenzen									
32) Chlordane {A}					0.037		0.037		0.00
33) Chlordane {B}					0.048		0.048		0.00
34) Chlordane {C}					0.157		0.157		0.00
35) Chlordane {D}					0.249		0.249		0.00
36) Chlordane {E}					0.035		0.035		0.00

Signal #2

1) I 1-bromo-2-nitrobenzen -----ISTD-----

129.1
 12

Initial Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BSMC, Building 5 Area, PR

Sample: G4G1741-ICC1741
 Lab FileID: 4G66175.D

2)SABTetrachloro-m-xyl	0.938	0.918	0.898	0.917	0.967	0.989	1.025	0.950	4.78
3)A alpha-BHC	1.179	1.155	1.182	1.250	1.384	1.462	1.209	1.260	9.32
4)MAGamma-BHC	1.073	1.050	1.067	1.121	1.237	1.298	1.062	1.130	8.70
5)MAHeptachlor	1.074	1.058	1.078	1.127	1.221	1.267	1.154	1.140	6.99
6)B beta-BHC	0.468	0.484	0.504	0.508	0.551	0.561	0.457	0.505	7.80
7)B delta-BHC	0.981	0.962	0.984	1.041	1.145	1.216	1.038	1.052	8.99
8)MBAldrin	1.064	1.034	1.065	1.103	1.193	1.244	1.234	1.134	7.72
9)B Heptachlor Epoxid	0.987	0.958	0.995	1.015	1.087	1.112	0.984	1.020	5.64
10)B gamma-Chlordane	0.978	0.980	0.992	1.017	1.088	1.124	1.104	1.040	6.03
11)B alpha-Chlordane	1.000	0.984	0.981	1.003	1.053	1.088	1.012	1.017	3.84
12)A Endosulfan I	0.905	0.940	0.943	0.968	1.019	1.042	1.169	0.998	8.91
13)B 4,4'-DDE	0.906	0.901	0.922	0.975	1.043	1.081	0.986	0.973	7.16
14)MADieldrin	0.953	0.959	0.974	1.013	1.095	1.138	0.919	1.007	7.98
15)MAEndrin	0.901	0.884	0.869	0.897	0.964	0.987	0.878	0.911	5.00
16)A 4,4'-DDD	0.903	0.804	0.794	0.821	0.896	0.915	0.961	0.871	7.36
17)B Endosulfan II	0.880	0.859	0.867	0.890	0.985	0.996	0.916	0.913	6.12
18)MA4,4'-DDT	0.402	0.504	0.522	0.610	0.704	0.759	0.398	0.557	25.23

----- Quadratic regression ----- Coefficient = 0.9996
 Response Ratio = -0.01457 + 0.63980 *A + 0.06368 *A^2

19)B Endrin Aldehyde	0.802	0.695	0.708	0.742	0.769	0.775	0.941	0.776	10.55
20)B Endosulfan Sulfat	0.751	0.742	0.793	0.777	0.810	0.817	0.789	0.783	3.59
21)A Methoxychlor	0.306	0.311	0.318	0.368	0.389	0.406	0.301	0.343	12.73
22) Mirex	0.720	0.716	0.721	0.693	0.705	0.711	0.716	0.712	1.42
23)B Endrin Ketone	0.811	0.841	0.886	0.936	1.030	1.078	0.757	0.906	12.87
24)SADecachlorobipheny	0.666	0.720	0.690	0.695	0.716	0.702	0.730	0.703	3.09

25) I 1-bromo-2-nitrobenzen	-----ISTD-----							
26)L8Toxaphene{A}					0.020		0.020	0.00
27)L8Toxaphene{B}					0.025		0.025	0.00
28)L8Toxaphene{C}					0.042		0.042	0.00
29)L8Toxaphene{D}					0.025		0.025	0.00
30)L8Toxaphene{E}					0.020		0.020	0.00

31) I 1-bromo-2-nitrobenzen	-----ISTD-----							
32) Chlordane {A}					0.039		0.039	0.00
33) Chlordane {B}					0.043		0.043	0.00
34) Chlordane {C}					0.156		0.156	0.00
35) Chlordane {D}					0.255		0.255	0.00
36) Chlordane {E}					0.038		0.038	0.00

(#) = Out of Range

4PST1741.M

Sat Mar 19 13:35:43 2016

RPT1

12.9.1
12

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1741-ICV1741
 Lab FileID: 4G66181.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G1741\4g66181.D\ECD1A.ch Vial: 13
 Signal #2 : C:\msdchem\1\DATA\4G1741\4g66181.D\ECD2B.ch
 Acq On : 18 Mar 2016 8:41 pm Operator: brittanp
 Sample : icv1741-25 Inst : GC4G
 Misc : op92130,g4g1741,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Sat Mar 19 13:02:16 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	0.00	2.03	2.09
2 SAB Tetrachloro-m-xylene	0.977	1.020	-4.4	101	0.00	2.57	2.63
3 A alpha-BHC	1.310	1.370	-4.6	97	0.00	3.01	3.07
4 MA gamma-BHC	1.177	1.214	-3.1	98	0.00	3.30	3.36
5 MA Heptachlor	1.141	1.243	-8.9	103	0.00	3.58	3.64
6 B beta-BHC	0.596	0.622	-4.4	98	0.00	3.39	3.45
7 B delta-BHC	1.128	1.179	-4.5	100	0.00	3.78	3.84
8 MB Aldrin	1.162	1.223	-5.2	100	0.00	4.12	4.18
9 B Heptachlor Epoxide	1.081	1.121	-3.7	99	0.00	4.82	4.88
10 B gamma-Chlordane	1.064	1.133	-6.5	101	0.00	4.99	5.05
11 B alpha-Chlordane	1.050	1.086	-3.4	99	0.00	5.16	5.22
12 A Endosulfan I	1.091	1.194	-9.4	101	0.00	5.33	5.39
13 B 4,4'-DDE	0.881	0.832	5.6	92	0.00	5.28	5.34
14 MA Dieldrin	1.071	1.115	-4.1	100	0.00	5.65	5.71
15 MA Endrin	0.939	1.007	-7.2	101	0.00	5.98	6.04
16 A 4,4'-DDD	0.764	0.843	-10.3	101	0.01	6.12	6.18
17 B Endosulfan II	0.922	1.016	-10.2	104	0.00	6.31	6.37
----- True Calc. % Drift -----							
18 MA 4,4'-DDT	25.000	25.515	-2.1	101	0.00	6.53	6.59
----- AvgRF CCRF % Dev -----							
19 B Endrin Aldehyde	0.770	0.829	-7.7	100	0.00	6.92	6.98
20 B Endosulfan Sulfate	0.765	0.841	-9.9	101	0.00	7.60	7.66
21 A Methoxychlor	0.298	0.299	-0.3	93	0.00	7.32	7.38
23 B Endrin Ketone	0.894	0.979	-9.5	100	0.00	8.05	8.11
24 SA Decachlorobiphenyl	1.001	1.090	-8.9	105	0.00	9.78	9.84

***** Signal #2 *****

1 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	0.00	2.19	2.25
2 SAB Tetrachloro-m-xylene	0.950	0.960	-1.1	98	0.00	2.97	3.03
3 A alpha-BHC	1.260	1.308	-3.8	98	0.00	3.61	3.67
4 MA gamma-BHC	1.130	1.184	-4.8	99	0.00	4.04	4.10
5 MA Heptachlor	1.140	1.196	-4.9	100	0.00	4.61	4.67
6 B beta-BHC	0.505	0.540	-6.9	100	0.00	4.12	4.18
7 B delta-BHC	1.052	1.135	-7.9	103	0.00	4.51	4.57
8 MB Aldrin	1.134	1.157	-2.0	99	0.00	5.07	5.13
9 B Heptachlor Epoxide	1.020	1.089	-6.8	101	0.00	5.88	5.94
10 B gamma-Chlordane	1.040	1.098	-5.6	101	0.00	6.17	6.23

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1741-ICV1741
 Lab FileID: 4G66181.D

11	B	alpha-Chlordane	1.017	1.060	-4.2	99	0.00	6.39-	6.45	
12	A	Endosulfan I	0.998	0.989	0.9	96	0.00	6.50-	6.56	
13	B	4,4'-DDE	0.973	1.026	-5.4	99	0.00	6.64-	6.70	
14	MA	Dieldrin	1.007	1.081	-7.3	100	0.00	6.93-	6.99	
15	MA	Endrin	0.911	0.974	-6.9	102	0.00	7.44-	7.50	
16	A	4,4'-DDD	0.871	0.898	-3.1	103	0.00	7.60-	7.66	
17	B	Endosulfan II	0.913	1.003	-9.9	106	0.00	7.79-	7.85	
----- True Calc. % Drift -----										
18	MA	4,4'-DDT	25.000	24.682	1.3	98	0.00	8.13-	8.19	
----- AvgRF CCRF % Dev -----										
19	B	Endrin Aldehyde	0.776	0.805	-3.7	102	0.00	8.36-	8.42	
20	B	Endosulfan Sulfate	0.783	0.818	-4.5	99	0.00	8.83-	8.89	
21	A	Methoxychlor	0.343	0.361	-5.2	92	0.00	9.36-	9.42	
23	B	Endrin Ketone	0.906	0.999	-10.3	100	0.00	9.73-	9.79	
24	SA	Decachlorobiphenyl	0.703	0.772	-9.8	104	0.00	11.19-	11.25	

(#) = Out of Range
 4g66175.D 4PST1741.M

SPCC's out = 0 CCC's out = 0
 Sat Mar 19 13:13:51 2016 RPT1

12.9.2
 12

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1741-ICV1741
 Lab FileID: 4G66183.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G1741\4g66183.D\ECD1A.ch Vial: 15
 Signal #2 : C:\msdchem\1\DATA\4G1741\4g66183.D\ECD2B.ch
 Acq On : 18 Mar 2016 9:10 pm Operator: brittanp
 Sample : icv1741-500 Inst : GC4G
 Misc : op92130,g4g1741,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Sat Mar 19 13:31:47 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
31 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	96	0.00	1.96- 2.16
32 Chlordane {A}	0.037	0.041	-10.8	105	0.00	3.62- 3.82
33 Chlordane {B}	0.048	0.048	0.0	95	0.00	4.18- 4.38
34 Chlordane {C}	0.157	0.143	8.9	87	0.00	4.92- 5.12
35 Chlordane {D}	0.249	0.229	8.0	89	0.00	5.08- 5.28
36 Chlordane {E}	0.035	0.032	8.6	88	0.00	6.15- 6.35

***** Signal #2 *****

31 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	2.12- 2.32
32 Chlordane {A}	0.039	0.038	2.6	104	0.00	4.34- 4.54
33 Chlordane {B}	0.043	0.039	9.3	96	0.00	5.18- 5.38
34 Chlordane {C}	0.156	0.126	19.2	85	0.00	6.10- 6.30
35 Chlordane {D}	0.255	0.210	17.6	87	0.00	6.32- 6.52
36 Chlordane {E}	0.038	0.032	15.8	90	0.00	7.80- 8.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 4g66176.D 4PST1741.M Sat Mar 19 13:34:52 2016 RPT1

12.9.4
 12

Initial Calibration Verification

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1741-ICV1741
 Lab FileID: 4G66184.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G1741\4g66184.D\ECD1A.ch Vial: 16
 Signal #2 : C:\msdchem\1\DATA\4G1741\4g66184.D\ECD2B.ch
 Acq On : 18 Mar 2016 9:25 pm Operator: brittanp
 Sample : icv1741-500 Inst : GC4G
 Misc : op92130,g4g1741,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Sat Mar 19 13:02:16 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
25 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	1.96-	2.16
26 L8 Toxaphene{A}	0.041	0.038	7.3	101	0.00	5.95-	6.15
27 L8 Toxaphene{B}	0.040	0.038	5.0	103	0.00	6.22-	6.42
28 L8 Toxaphene{C}	0.035	0.032	8.6	102	0.00	6.39-	6.59
29 L8 Toxaphene{D}	0.032	0.032	0.0	106	0.00	6.74-	6.94
30 L8 Toxaphene{E}	0.025	0.023	8.0	100	0.00	7.40-	7.60

***** Signal #2 *****

25 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	2.13-	2.33
26 L8 Toxaphene{A}	0.020	0.022	-10.0	117	0.00	6.82-	7.02
27 L8 Toxaphene{B}	0.025	0.026	-4.0	113	0.00	7.69-	7.89
28 L8 Toxaphene{C}	0.042	0.041	2.4	103	0.00	7.85-	8.05
29 L8 Toxaphene{D}	0.025	0.025	0.0	106	0.00	8.29-	8.49
30 L8 Toxaphene{E}	0.020	0.019	5.0	102	0.00	9.20-	9.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 4g66176.D 4PST1741.M Sat Mar 19 13:14:11 2016 RPT1

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1744-CC1741
 Lab FileID: 4G66275.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G1744\4g66275.D\ECD1A.ch Vial: 2
 Signal #2 : C:\msdchem\1\DATA\4G1744\4g66275.D\ECD2B.ch
 Acq On : 20 Mar 2016 9:52 am Operator: brittanp
 Sample : cc1741-50 Inst : GC4G
 Misc : op92028,g4g1744,100,,,10,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Mon Mar 21 15:01:38 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	2.02-	2.08
2 SAB	Tetrachloro-m-xylene	0.977	0.963	1.4	103	-0.01	2.56-	2.62
3 A	alpha-BHC	1.310	1.378	-5.2	105	0.00	3.01-	3.07
4 MA	gamma-BHC	1.177	1.215	-3.2	105	0.00	3.29-	3.35
5 MA	Heptachlor	1.141	1.204	-5.5	107	0.00	3.57-	3.63
6 B	beta-BHC	0.596	0.595	0.2	106	0.00	3.38-	3.44
7 B	delta-BHC	1.128	1.222	-8.3	111	0.00	3.78-	3.84
8 MB	Aldrin	1.162	1.186	-2.1	104	0.00	4.11-	4.17
9 B	Heptachlor Epoxide	1.081	1.085	-0.4	104	0.00	4.81-	4.87
10 B	gamma-Chlordane	1.064	1.042	2.1	101	0.00	4.98-	5.04
11 B	alpha-Chlordane	1.050	1.037	1.2	103	0.00	5.15-	5.21
12 A	Endosulfan I	1.091	1.130	-3.6	104	0.00	5.33-	5.39
13 B	4,4'-DDE	0.881	0.865	1.8	100	0.00	5.27-	5.33
14 MA	Dieldrin	1.071	1.091	-1.9	104	0.00	5.65-	5.71
15 MA	Endrin	0.939	1.030	-9.7	110	0.00	5.97-	6.03
16 A	4,4'-DDD	0.764	0.813	-6.4	104	0.00	6.11-	6.17
17 B	Endosulfan II	0.922	1.015	-10.1	111	0.00	6.30-	6.36
----- True Calc. % Drift -----								
18 MA	4,4'-DDT	50.000	58.929	-17.9	129	0.00	6.52-	6.58
----- AvgRF CCRF % Dev -----								
19 B	Endrin Aldehyde	0.770	0.816	-6.0	103	0.00	6.92-	6.98
20 B	Endosulfan Sulfate	0.765	0.909	-18.8	117	0.00	7.59-	7.65
21 A	Methoxychlor	0.298	0.489	-64.1#	153	0.00	7.31-	7.37
22	Mirex	0.778	0.816	-4.9	112	0.00	7.49-	7.55
23 B	Endrin Ketone	0.894	0.977	-9.3	105	0.00	8.05-	8.11
24 SA	Decachlorobiphenyl	1.001	1.039	-3.8	112	0.00	9.78-	9.84

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	2.19-	2.25
2 SAB	Tetrachloro-m-xylene	0.950	0.955	-0.5	109	0.00	2.97-	3.03
3 A	alpha-BHC	1.260	1.367	-8.5	109	0.00	3.61-	3.67
4 MA	gamma-BHC	1.130	1.225	-8.4	109	0.00	4.03-	4.09
5 MA	Heptachlor	1.140	1.247	-9.4	112	0.00	4.61-	4.67
6 B	beta-BHC	0.505	0.553	-9.5	111	0.00	4.11-	4.17
7 B	delta-BHC	1.052	1.152	-9.5	111	0.00	4.51-	4.57
8 MB	Aldrin	1.134	1.173	-3.4	108	0.00	5.06-	5.12

12.9.6 12

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1744-CC1741
 Lab FileID: 4G66275.D

9 B	Heptachlor Epoxide	1.020	1.114	-9.2	113	0.00	5.88-	5.94	
10 B	gamma-Chlordane	1.040	1.068	-2.7	108	0.00	6.17-	6.23	
11 B	alpha-Chlordane	1.017	1.034	-1.7	108	0.00	6.39-	6.45	
12 A	Endosulfan I	0.998	0.992	0.6	107	0.00	6.49-	6.55	
13 B	4,4'-DDE	0.973	1.024	-5.2	108	0.00	6.64-	6.70	
14 MA	Dieldrin	1.007	1.072	-6.5	108	0.00	6.93-	6.99	
15 MA	Endrin	0.911	0.991	-8.8	113	0.00	7.44-	7.50	
16 A	4,4'-DDD	0.871	0.852	2.2	105	0.00	7.60-	7.66	
17 B	Endosulfan II	0.913	0.942	-3.2	105	0.00	7.79-	7.85	
----- True Calc. % Drift -----									
18 MA	4,4'-DDT	50.000	57.182	-14.4	125	0.00	8.13-	8.19	
----- AvgRF CCRF % Dev -----									
19 B	Endrin Aldehyde	0.776	0.847	-9.1	121	0.00	8.36-	8.42	
20 B	Endosulfan Sulfate	0.783	0.831	-6.1	113	0.00	8.83-	8.89	
21 A	Methoxychlor	0.343	0.452	-31.8#	128	0.00	9.36-	9.42	
22	Mirex	0.712	0.698	2.0	109	0.00	9.68-	9.74	
23 B	Endrin Ketone	0.906	1.042	-15.0	111	0.00	9.73-	9.79	
24 SA	Decachlorobiphenyl	0.703	0.757	-7.7	116	0.00	11.19-	11.25	

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

4g66176.D 4PST1741.M

Mon Mar 21 16:19:31 2016 RPT1

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1745-CC1741
 Lab FileID: 4G66295.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\4G1745\4g66295.D\ECD1A.ch Vial: 2
 Signal #2 : C:\msdchem\1\DATA\4G1745\4g66295.D\ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am Operator: rebeccak
 Sample : cc1741-25 Inst : GC4G
 Misc : op92189,g4g1745,100,,,10,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Sat Mar 19 13:31:47 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	2.04-	2.10
2 SAB	Tetrachloro-m-xylene	0.977	1.001	-2.5	108	0.00	2.58-	2.64
3 A	alpha-BHC	1.310	1.379	-5.3	107	0.00	3.02-	3.08
4 MA	gamma-BHC	1.177	1.235	-4.9	109	0.00	3.30-	3.36
5 MA	Heptachlor	1.141	1.026	10.1	93	0.00	3.57-	3.63
6 B	beta-BHC	0.596	0.564	5.4	97	0.00	3.38-	3.44
7 B	delta-BHC	1.128	1.120	0.7	104	0.00	3.79-	3.85
8 MB	Aldrin	1.162	1.165	-0.3	104	0.00	4.12-	4.18
9 B	Heptachlor Epoxide	1.081	0.952	11.9	92	0.00	4.82-	4.88
10 B	gamma-Chlordane	1.064	0.904	15.0	89	0.00	4.99-	5.05
11 B	alpha-Chlordane	1.050	1.021	2.8	102	0.00	5.15-	5.21
12 A	Endosulfan I	1.091	1.046	4.1	97	0.00	5.33-	5.39
13 B	4,4'-DDE	0.881	0.931	-5.7	112	0.00	5.27-	5.33
14 MA	Dieldrin	1.071	1.039	3.0	102	0.00	5.65-	5.71
15 MA	Endrin	0.939	0.982	-4.6	108	0.00	5.98-	6.04
16 A	4,4'-DDD	0.764	0.815	-6.7	107	0.00	6.11-	6.17
17 B	Endosulfan II	0.922	0.930	-0.9	104	0.00	6.30-	6.36
----- True Calc. % Drift -----								
18 MA	4,4'-DDT	25.000	24.791	0.8	107	0.00	6.52-	6.58
----- AvgRF CCRF % Dev -----								
19 B	Endrin Aldehyde	0.770	0.749	2.7	99	0.00	6.92-	6.98
20 B	Endosulfan Sulfate	0.765	0.782	-2.2	103	0.00	7.59-	7.65
21 A	Methoxychlor	0.298	0.361	-21.1#	122	0.00	7.31-	7.37
22	Mirex	0.778	0.734	5.7	101	0.00	7.49-	7.55
23 B	Endrin Ketone	0.894	0.909	-1.7	101	0.00	8.05-	8.11
24 SA	Decachlorobiphenyl	1.001	0.955	4.6	101	0.00	9.78-	9.84

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	111	0.00	2.20-	2.26
2 SAB	Tetrachloro-m-xylene	0.950	0.925	2.6	112	0.00	2.98-	3.04
3 A	alpha-BHC	1.260	1.253	0.6	111	0.00	3.61-	3.67
4 MA	gamma-BHC	1.130	1.053	6.8	104	0.00	4.04-	4.10
5 MA	Heptachlor	1.140	1.126	1.2	111	0.00	4.61-	4.67
6 B	beta-BHC	0.505	0.469	7.1	103	0.00	4.12-	4.18
7 B	delta-BHC	1.052	0.987	6.2	105	0.00	4.51-	4.57
8 MB	Aldrin	1.134	1.074	5.3	108	0.00	5.07-	5.13

12.9.7 12

Continuing Calibration Summary

Job Number: JC15796
 Account: AMANYWP Anderson, Mulholland & Associates
 Project: BMSMC, Building 5 Area, PR

Sample: G4G1745-CC1741
 Lab FileID: 4G66295.D

9 B	Heptachlor Epoxide	1.020	0.942	7.6	103	0.00	5.88-	5.94
10 B	gamma-Chlordane	1.040	0.968	6.9	106	0.00	6.17-	6.23
11 B	alpha-Chlordane	1.017	0.962	5.4	106	0.00	6.39-	6.45
12 A	Endosulfan I	0.998	1.016	-1.8	117	0.00	6.49-	6.55
13 B	4,4'-DDE	0.973	0.962	1.1	110	0.00	6.64-	6.70
14 MA	Dieldrin	1.007	0.978	2.9	107	0.00	6.93-	6.99
15 MA	Endrin	0.911	0.900	1.2	111	0.00	7.44-	7.50
16 A	4,4'-DDD	0.871	0.802	7.9	108	0.00	7.59-	7.65
17 B	Endosulfan II	0.913	0.872	4.5	109	0.00	7.79-	7.85
		----- True Calc.		% Drift		-----		
18 MA	4,4'-DDT	25.000	24.549	1.8	115	0.00	8.13-	8.19
		----- AvgRF CCRF		% Dev		-----		
19 B	Endrin Aldehyde	0.776	0.688	11.3	103	0.00	8.36-	8.42
20 B	Endosulfan Sulfate	0.783	0.761	2.8	109	0.00	8.83-	8.89
21 A	Methoxychlor	0.343	0.361	-5.2	109	0.00	9.36-	9.42
22	Mirex	0.712	0.692	2.8	111	0.00	9.68-	9.74
23 B	Endrin Ketone	0.906	0.851	6.1	101	0.00	9.73-	9.79
24 SA	Decachlorobiphenyl	0.703	0.748	-6.4	120	0.00	11.19-	11.25

(#) = Out of Range
 4g66175.D 4PST1741.M SPCC's out = 0 CCC's out = 0
 Mon Mar 21 09:49:57 2016 RPT1

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66284.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:37 pm
 Operator : brittanp
 Sample : jc15796-1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:13:27 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	2.057	2.218	190.2E6	202.6E6	50.000	50.000
25)	I 1-bromo-2...	2.057	2.218	190.2E6	202.6E6	50.000	50.000
31)	I 1-bromo-2...	2.057	2.218	190.2E6	202.6E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.598	2.997	183.0E6	183.9E6	49.218m	47.754m
	Spiked Amount	40.000	Range 30 - 150	Recovery =	123.05%	119.38%	
24)	SA Decachlor...	9.810	11.220	259.5E6	177.7E6	68.167	62.410
	Spiked Amount	40.000		Recovery =	170.42%	156.02%	

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

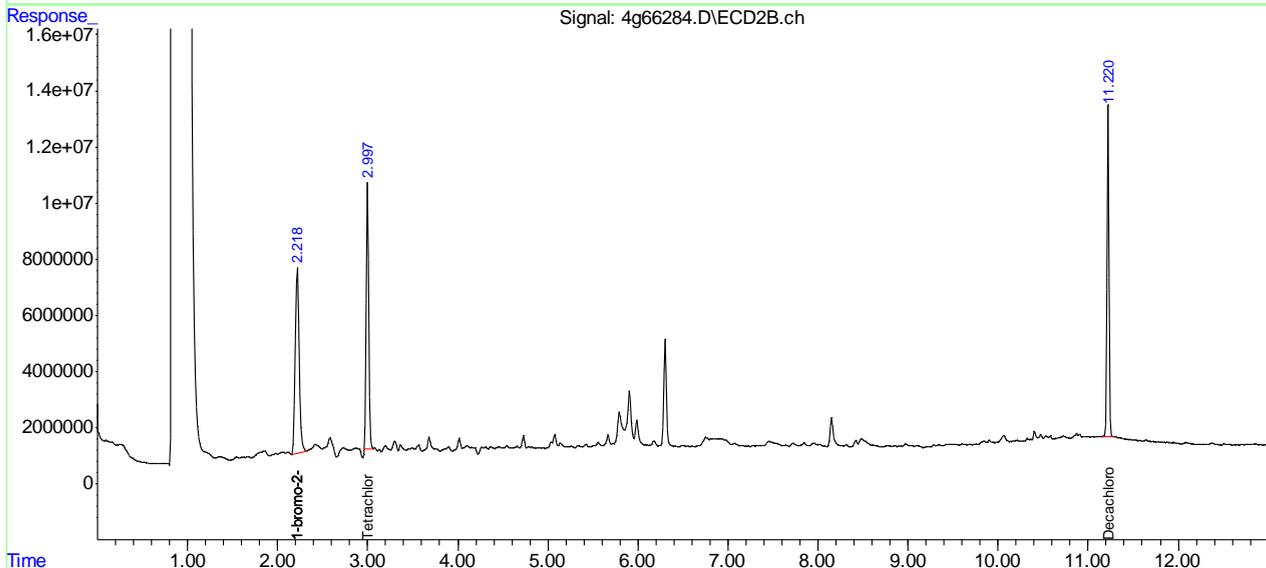
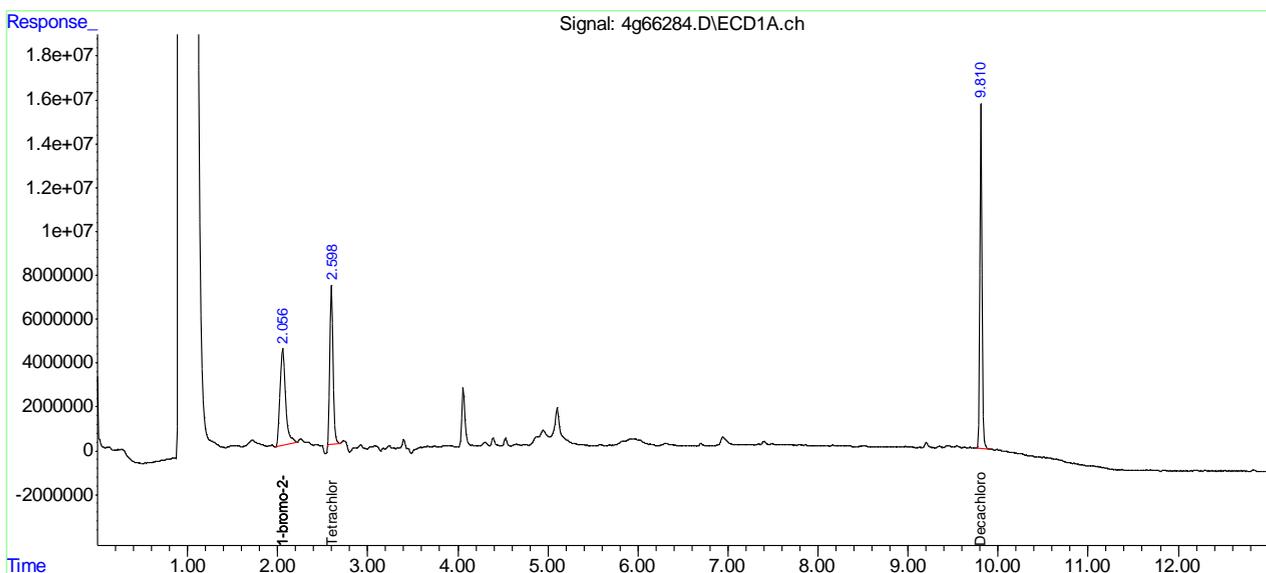
13.11
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66284.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:37 pm
 Operator : brittanp
 Sample : jc15796-1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:13:27 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.11
 13

Manual Integration Approval Summary

Sample Number: JC15796-1 Method: SW846 8081B
Lab FileID: 4G66284.D Analyst approved: 03/21/16 17:24 Brittany Piercy
Injection Time: 03/20/16 12:37 Supervisor approved: 03/22/16 17:36 Gwendolyn Burns

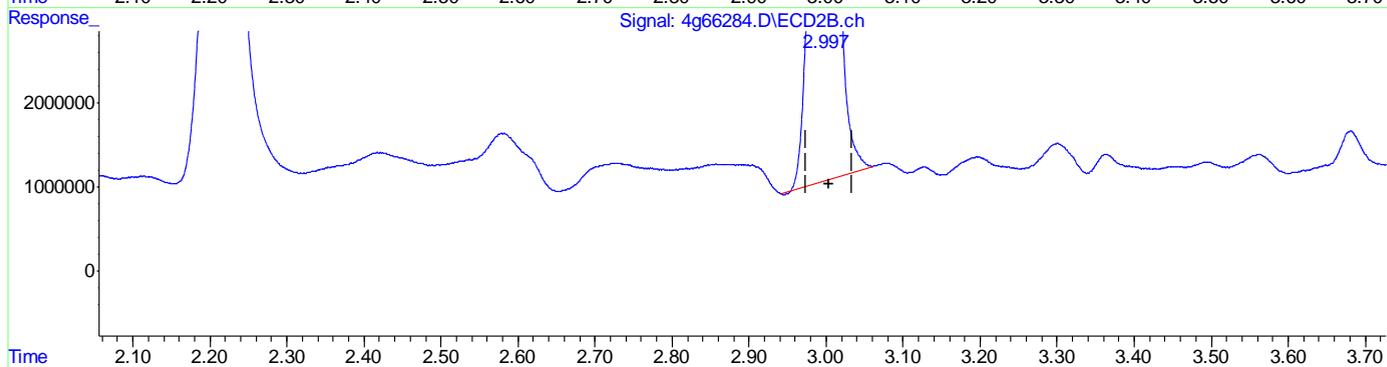
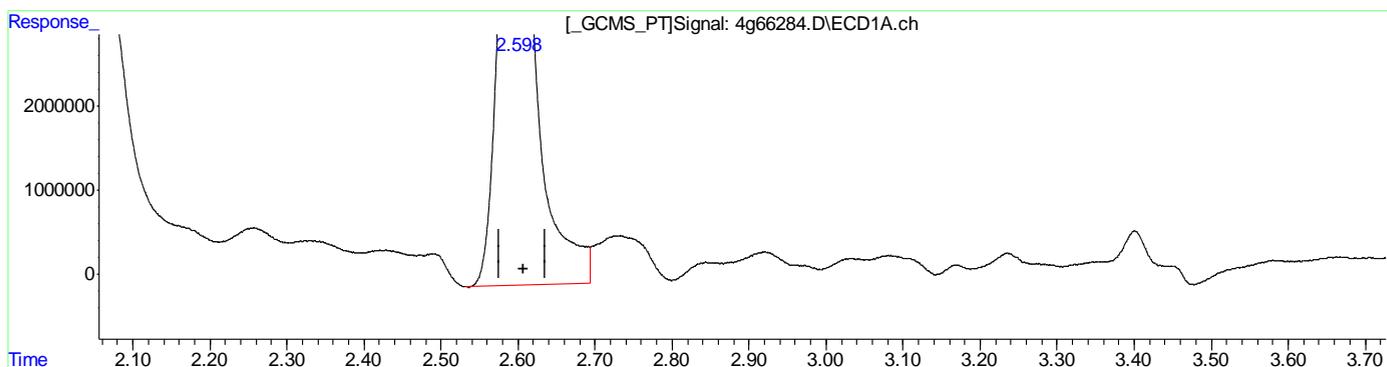
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.60	Poor instrument integration
Tetrachloro-m-xylene	877-09-8	2	3.00	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66284.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:37 pm
 Operator : brittanp
 Sample : jc15796-1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:12:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)
 2.597min 58.648 PPB
 response 218064253

(2) Tetrachloro-m-xylene #2 (SAB)
 2.997min 49.678 PPB
 response 191281888

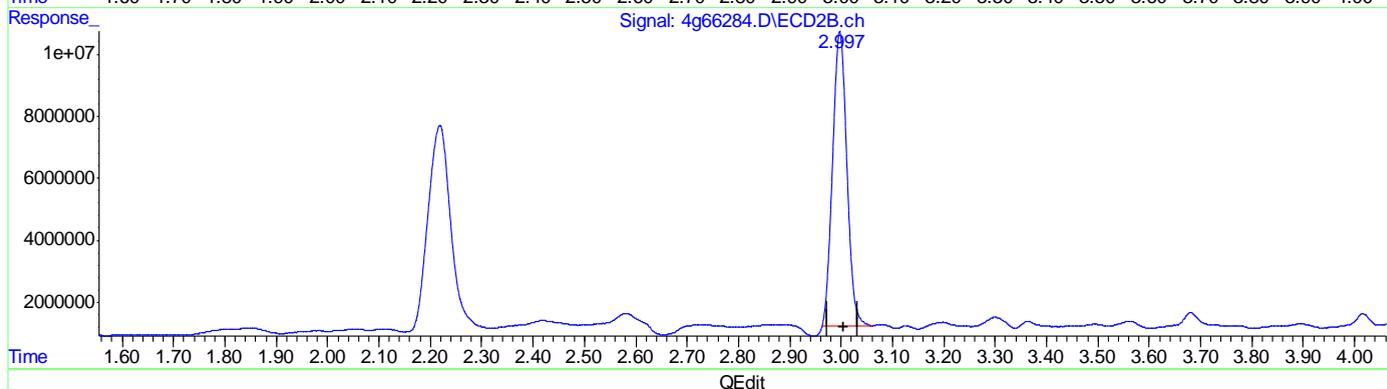
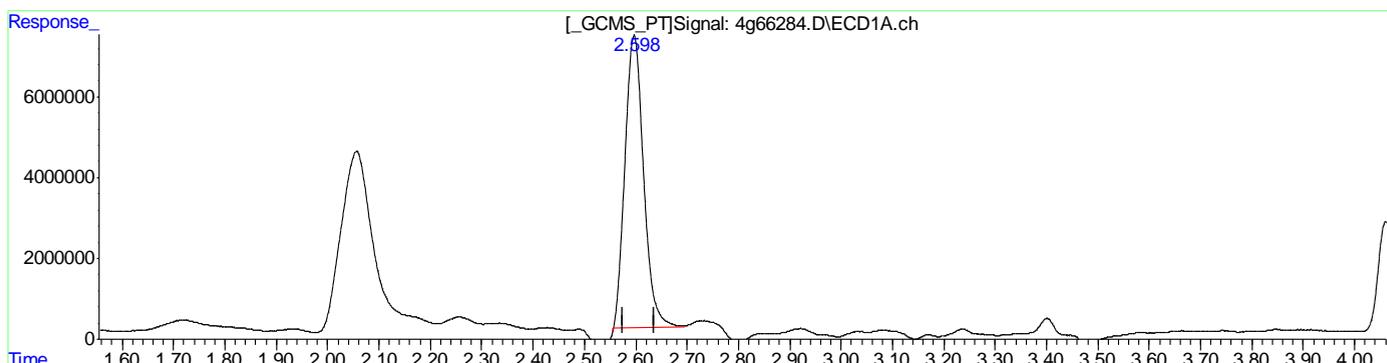
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66284.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:37 pm
 Operator : brittanp
 Sample : jc15796-1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:12:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)
 2.598min 49.218 PPB m
 response 183002240

(2) Tetrachloro-m-xylene #2 (SAB)
 2.997min 47.754 PPB m
 response 183874584

13.1.13
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66285.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:52 pm
 Operator : brittanp
 Sample : jc15796-2
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:14:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.052	2.218	246.7E6	229.1E6	50.000	50.000
25) I 1-bromo-2...	2.052	2.218	246.7E6	229.1E6	50.000	50.000
31) I 1-bromo-2...	2.052	2.218	246.7E6	229.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.596	2.998	176.9E6	183.5E6	36.677	42.145
Spiked Amount	40.000	Range 30 - 150	Recovery =	91.69%	105.36%	
24) SA Decachlor...	9.808	11.219	227.2E6	157.2E6	46.000	48.818
Spiked Amount	40.000		Recovery =	115.00%	122.05%	

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

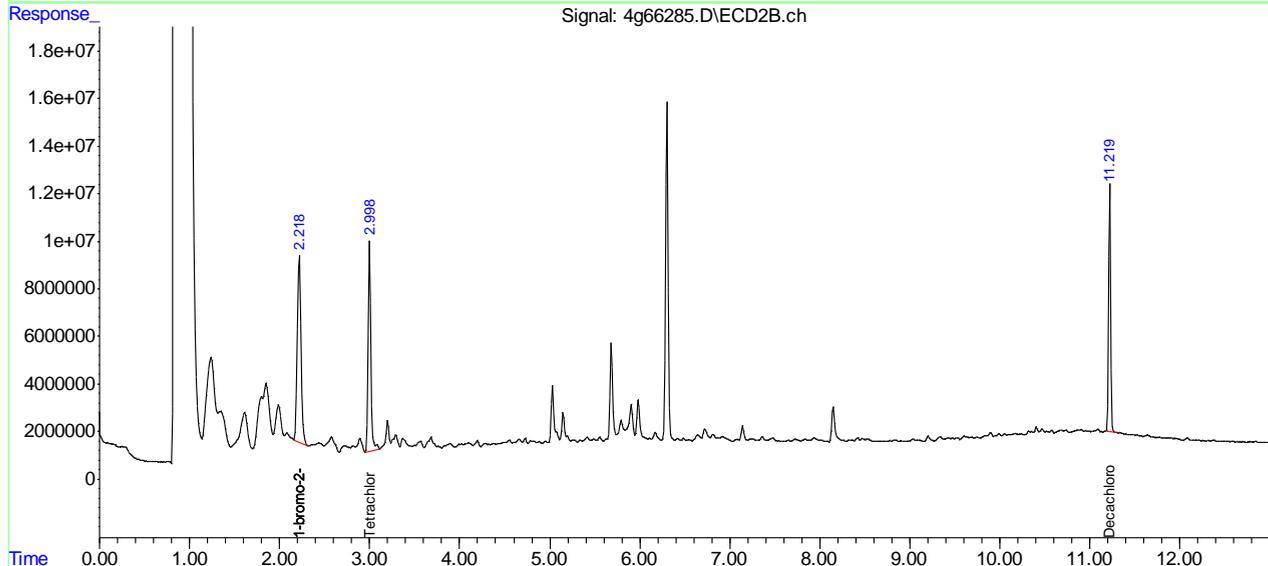
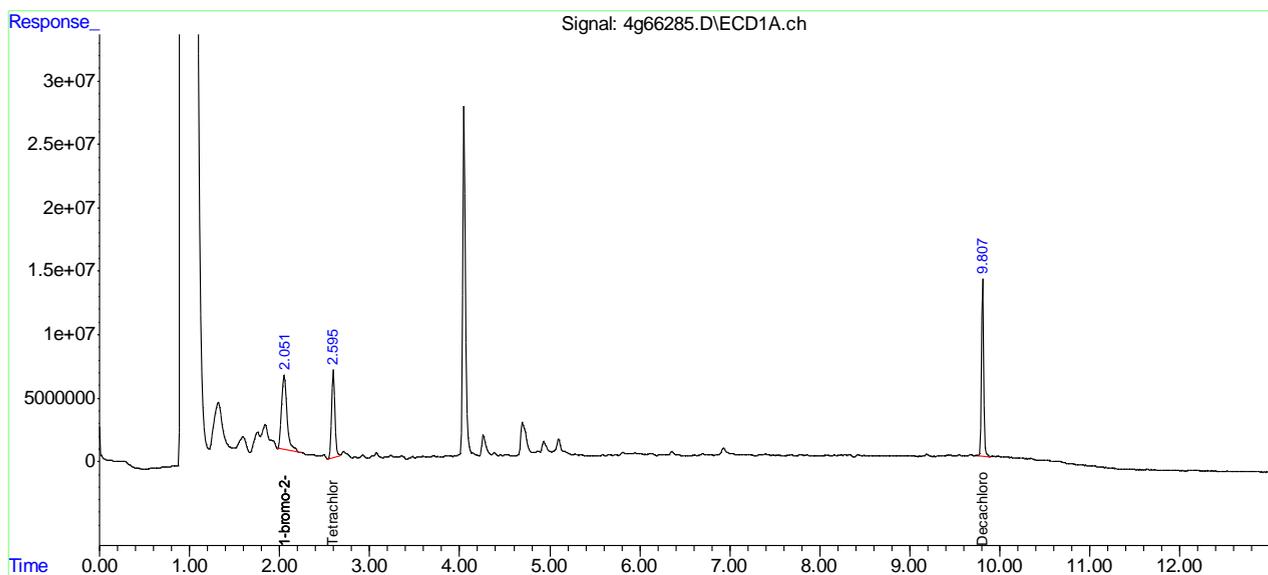
13.12
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66285.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:52 pm
 Operator : brittanp
 Sample : jc15796-2
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:14:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.12 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66286.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 1:06 pm
 Operator : brittanp
 Sample : jc15796-3
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:18:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.060	2.217	216.9E6	208.4E6	50.000	50.000
25) I 1-bromo-2...	2.060	2.217	216.9E6	208.4E6	50.000	50.000
31) I 1-bromo-2...	2.060	2.217	216.9E6	208.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.601	2.997	186.7E6	183.8E6	44.027	46.402
Spiked Amount	40.000	Range 30 - 150	Recovery =	110.07%	116.01%	
24) SA Decachlor...	9.813	11.222	145.7E6	104.6E6	33.547	35.686
Spiked Amount	40.000		Recovery =	83.87%	89.22%	

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

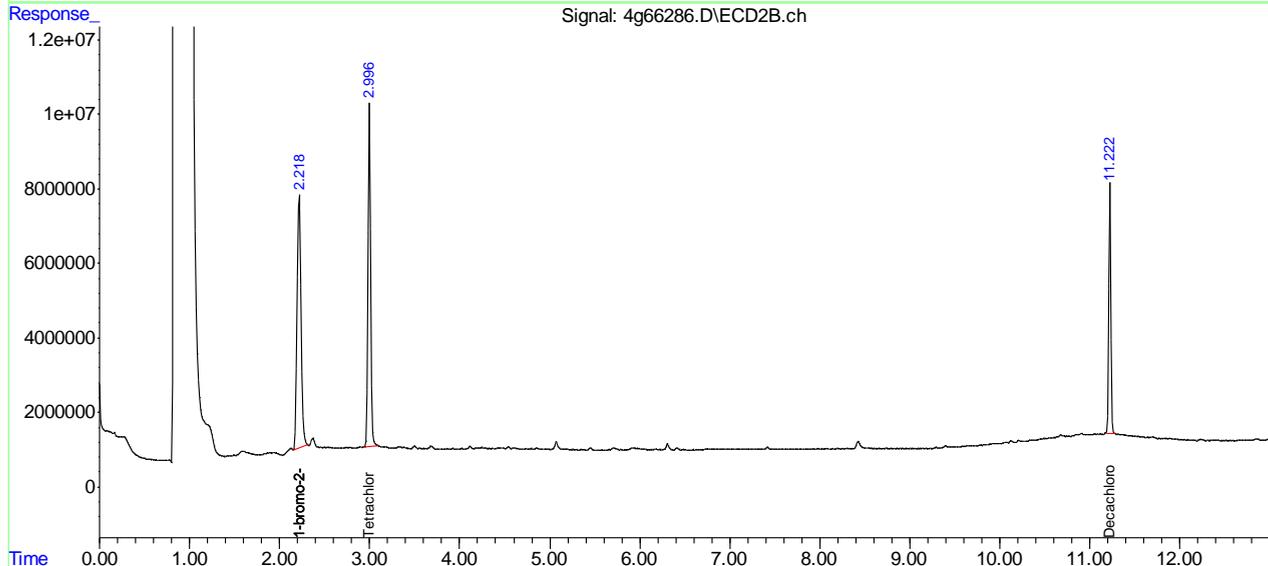
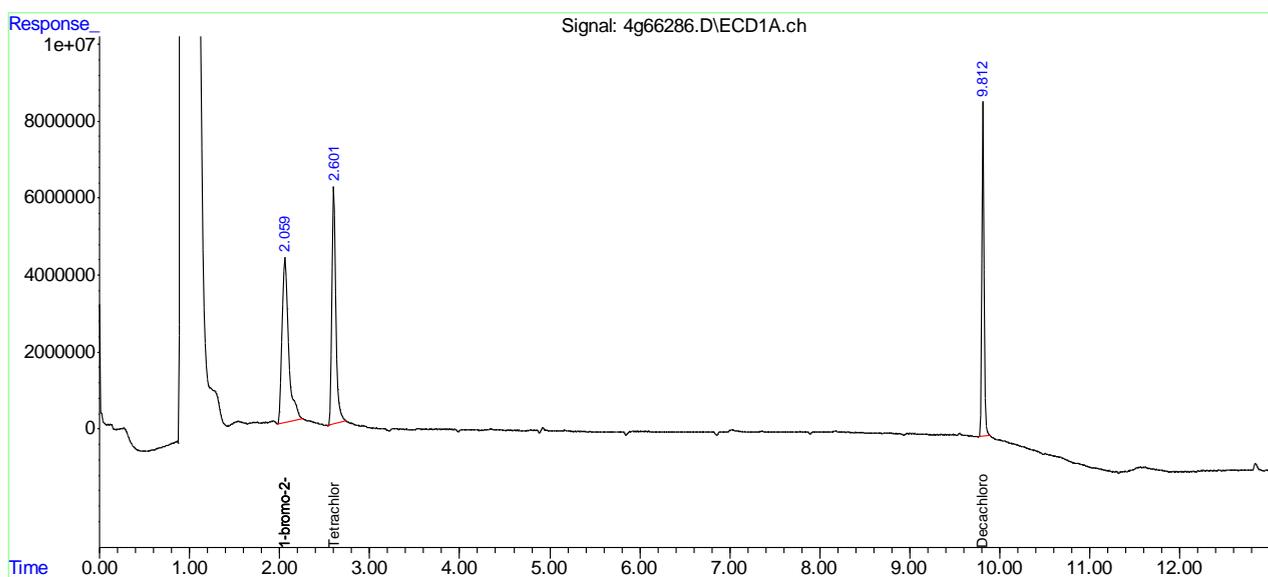
13.13
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66286.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 1:06 pm
 Operator : brittanp
 Sample : jc15796-3
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:18:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.13
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66280.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:38 am
 Operator : brittanp
 Sample : op92024-mb1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:28:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.060	2.220	196.7E6	197.4E6	50.000	50.000
25) I 1-bromo-2...	2.060	2.220	196.7E6	197.4E6	50.000	50.000
31) I 1-bromo-2...	2.060	2.220	196.7E6	197.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.600	2.998	213.4E6	206.5E6	55.487m	55.019
Spiked Amount	40.000	Range 30 - 150	Recovery =	138.72%	137.55%	
24) SA Decachlor...	9.812	11.224	249.0E6	171.1E6	63.235m	61.656
Spiked Amount	40.000		Recovery =	158.09%	154.14%	

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

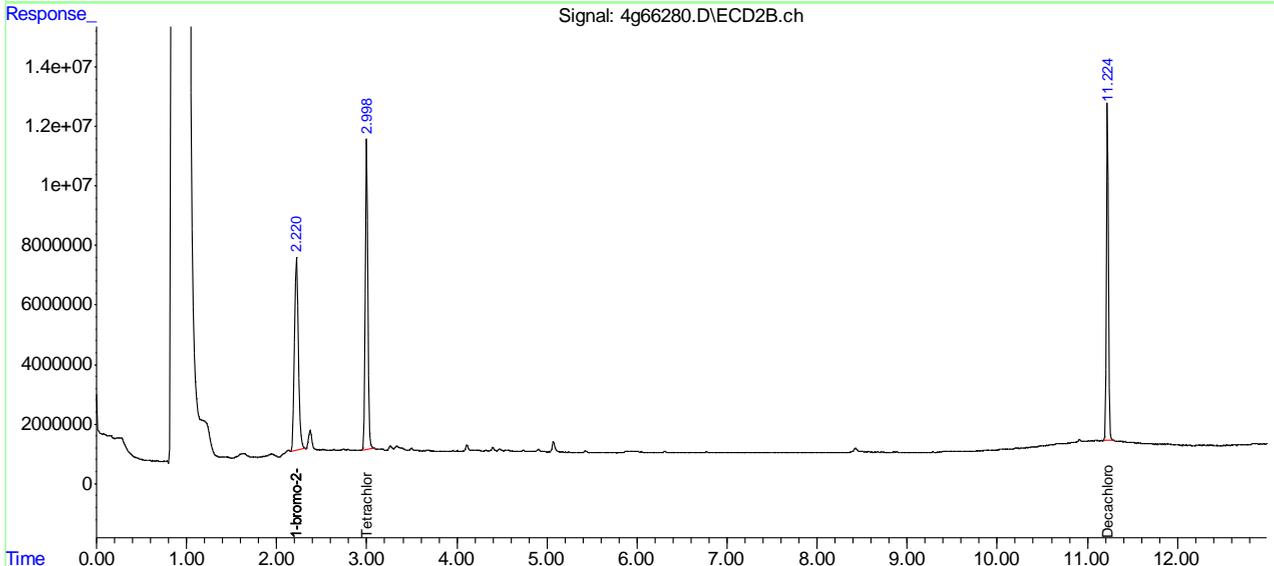
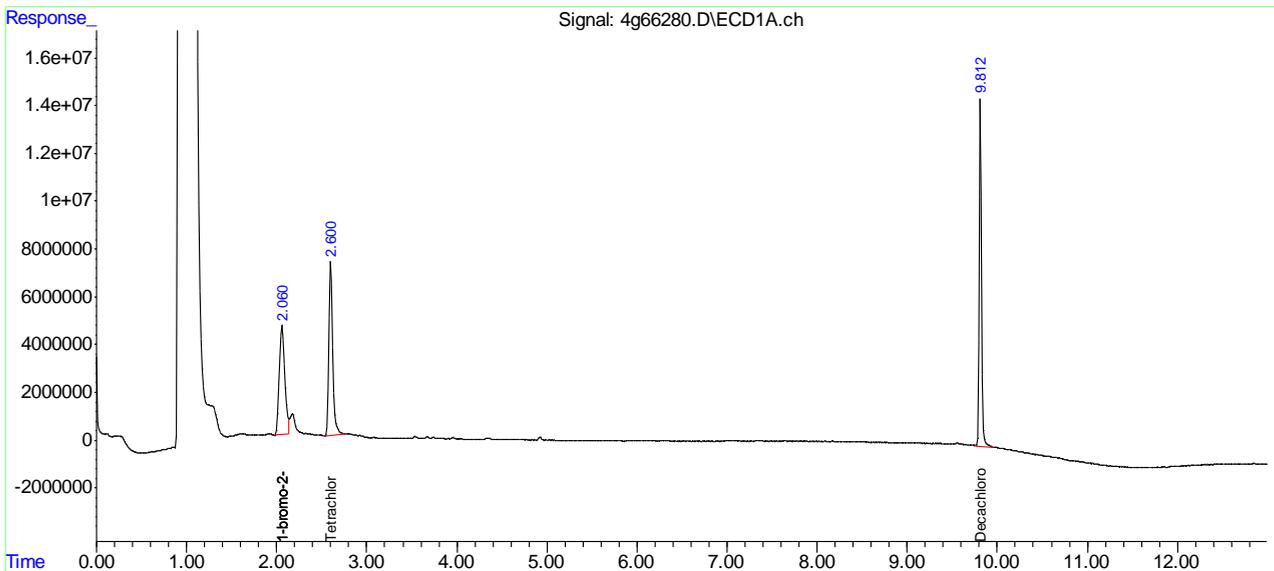
13.21
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66280.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:38 am
 Operator : brittanp
 Sample : op92024-mb1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:28:31 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integration Approval Summary

Sample Number: OP92024-MB1 Method: SW846 8081B
Lab FileID: 4G66280.D Analyst approved: 03/21/16 17:30 Brittany Piercy
Injection Time: 03/20/16 11:38 Supervisor approved: 03/23/16 16:21 Gwendolyn Burns

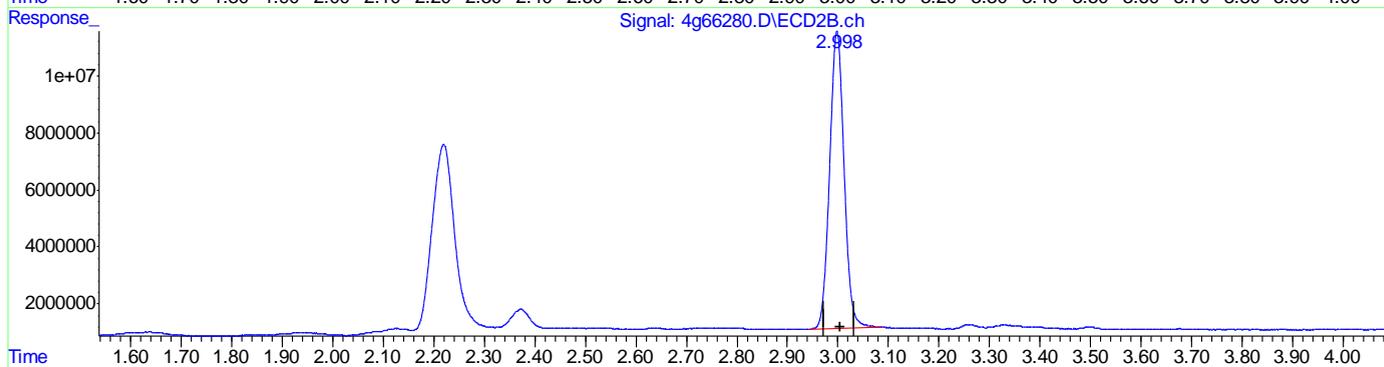
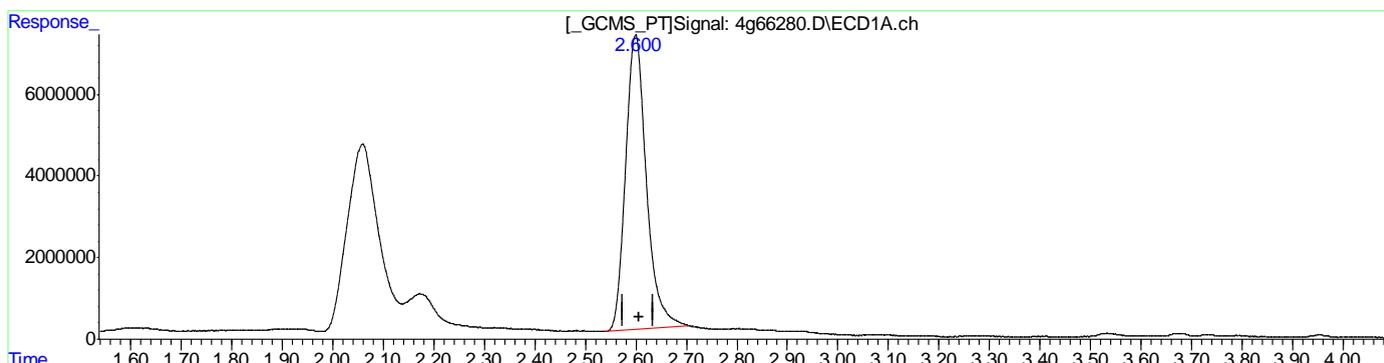
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.60	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	9.81	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66280.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:38 am
 Operator : brittanp
 Sample : op92024-mb1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:04:21 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)
 2.600min 53.516 PPB
 response 205818437

(2) Tetrachloro-m-xylene #2 (SAB)
 2.998min 55.019 PPB
 response 206458315

(+) = Expected Retention Time
 4PST1741.M Mon Mar 21 17:28:13 2016 RPT1

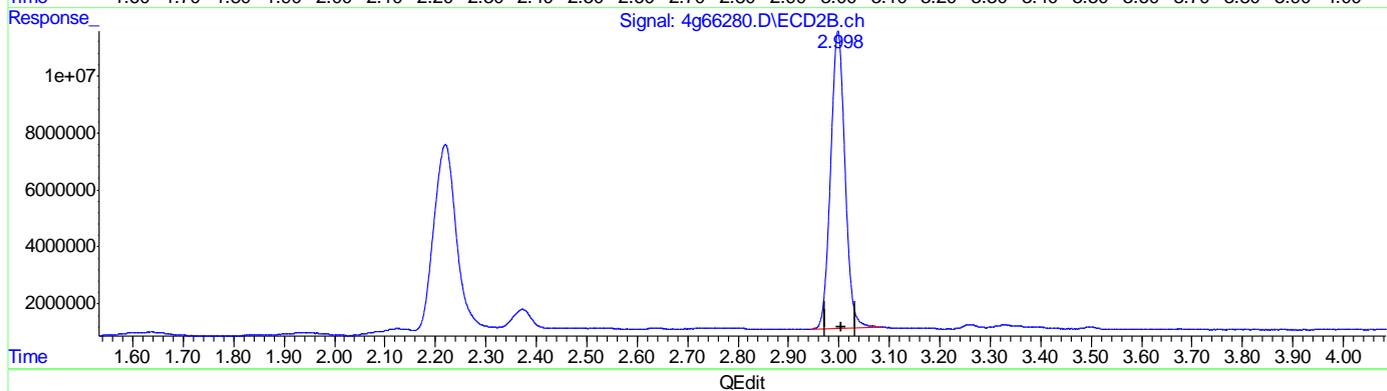
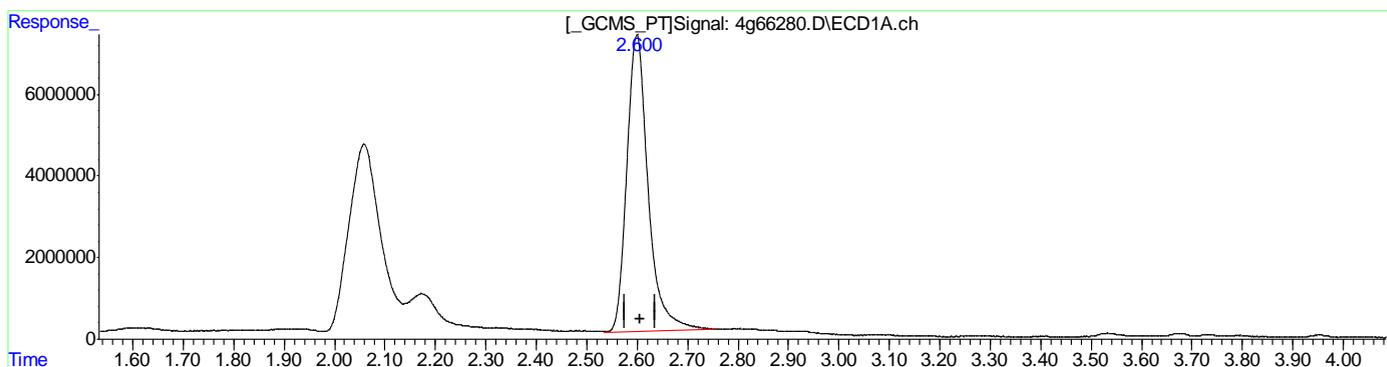
13.2.1.2
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66280.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:38 am
 Operator : brittanp
 Sample : op92024-mb1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:04:21 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)
 2.600min 55.487 PPB m
 response 213400217

(2) Tetrachloro-m-xylene #2 (SAB)
 2.998min 55.019 PPB
 response 206458315

(+) = Expected Retention Time
 4PST1741.M Mon Mar 21 17:28:24 2016 RPT1

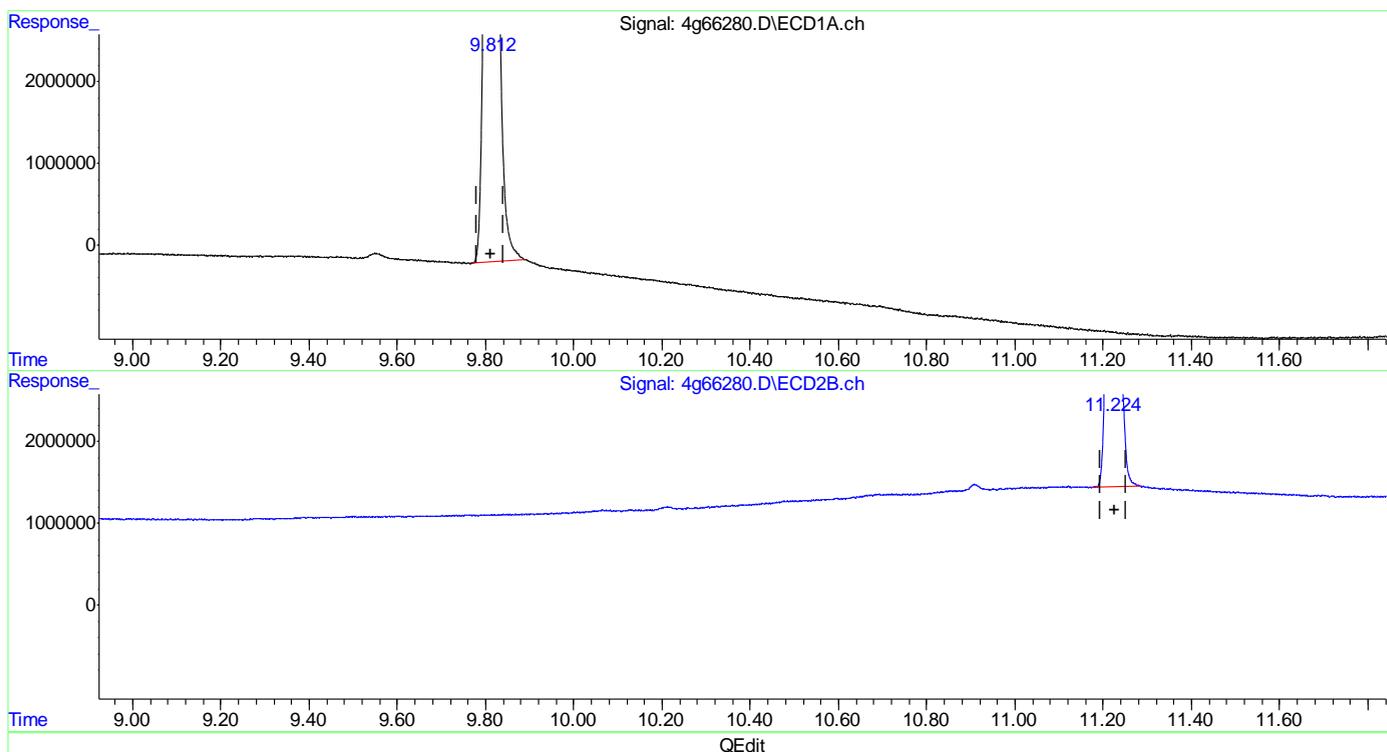
13.2.13
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66280.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:38 am
 Operator : brittanp
 Sample : op92024-mb1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:04:21 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)

9.812min 61.894 PPB
 response 243748199

(24) Decachlorobiphenyl #2 (SA)

11.224min 61.656 PPB
 response 171096755

(+) = Expected Retention Time

4PST1741.M Mon Mar 21 17:28:29 2016 RPT1

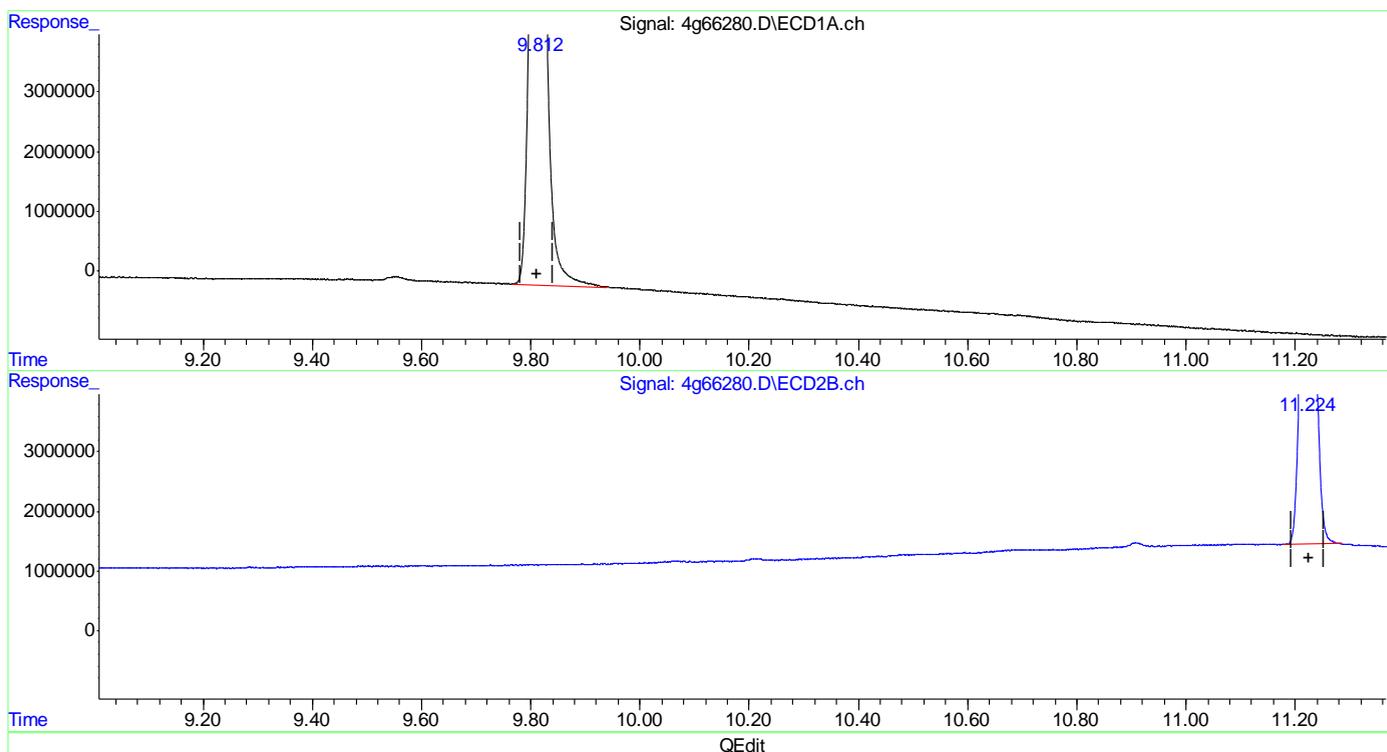
13.2.14
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66280.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:38 am
 Operator : brittanp
 Sample : op92024-mb1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:04:21 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)
 9.812min 63.235 PPB m
 response 249028795

(24) Decachlorobiphenyl #2 (SA)
 11.224min 61.656 PPB
 response 171096755

(+) = Expected Retention Time
 4PST1741.M Mon Mar 21 17:28:37 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66281.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:53 am
 Operator : brittanp
 Sample : op92024-bs1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:29:39 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.059	2.219	215.9E6	206.6E6	50.000	50.000
25) I 1-bromo-2...	2.059	2.219	215.9E6	206.6E6	50.000	50.000
31) I 1-bromo-2...	2.059	2.219	215.9E6	206.6E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.600	2.999	180.0E6	175.8E6	42.650	44.775
Spiked Amount	40.000	Range 30 - 150	Recovery =	106.62%	111.94%	
24) SA Decachlor...	9.812	11.222	223.6E6	154.1E6	51.733m	53.072
Spiked Amount	40.000		Recovery =	129.33%	132.68%	
Target Compounds						
3) A alpha-BHC	3.042	3.639	160.8E6	162.1E6	28.415	31.136
4) MA gamma-BHC	3.329	4.063	152.7E6	148.4E6	30.033	31.790
5) MA Heptachlor	3.607	4.638	138.5E6	147.8E6	28.126	31.393
6) B beta-BHC	3.417	4.145	71879704	69914897	27.911	33.528
7) B delta-BHC	3.810	4.542	149.6E6	137.7E6	30.732	31.664
8) MB Aldrin	4.144	5.093	144.9E6	139.1E6	28.889	29.696
9) B Heptachlo...	4.846	5.911	150.4E6	140.1E6	32.205m	33.266
10) B gamma-Chl...	5.015	6.197	142.7E6	136.3E6	31.074	31.711
11) B alpha-Chl...	5.183	6.420	140.3E6	134.8E6	30.940	32.073
12) A Endosulfan I	5.362	6.524	159.2E6	127.4E6	33.776	30.911
13) B 4,4'-DDE	5.311	6.671	92810940	126.6E6	24.405	31.491 #
14) MA Dieldrin	5.682	6.958	144.1E6	137.6E6	31.167	33.067
15) MA Endrin	6.008	7.467	138.9E6	130.4E6	34.248	34.639
16) A 4,4'-DDD	6.158f	7.629	92061554	106.5E6	27.912	29.610
17) B Endosulfa...	6.336	7.820	124.3E6	121.1E6	31.208	32.099
18) MA 4,4'-DDT	6.558	8.162	93917184	98723631	34.976	35.918
19) B Endrin Al...	6.952	8.389	108.5E6	103.9E6	32.618	32.395
20) B Endosulfa...	7.629	8.859	114.4E6	108.6E6	34.645	33.585
21) A Methoxychlor	7.356	9.391	49265532	56205927	38.266	39.703
23) B Endrin Ke...	8.083	9.761	125.9E6	130.4E6	32.620	34.846

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

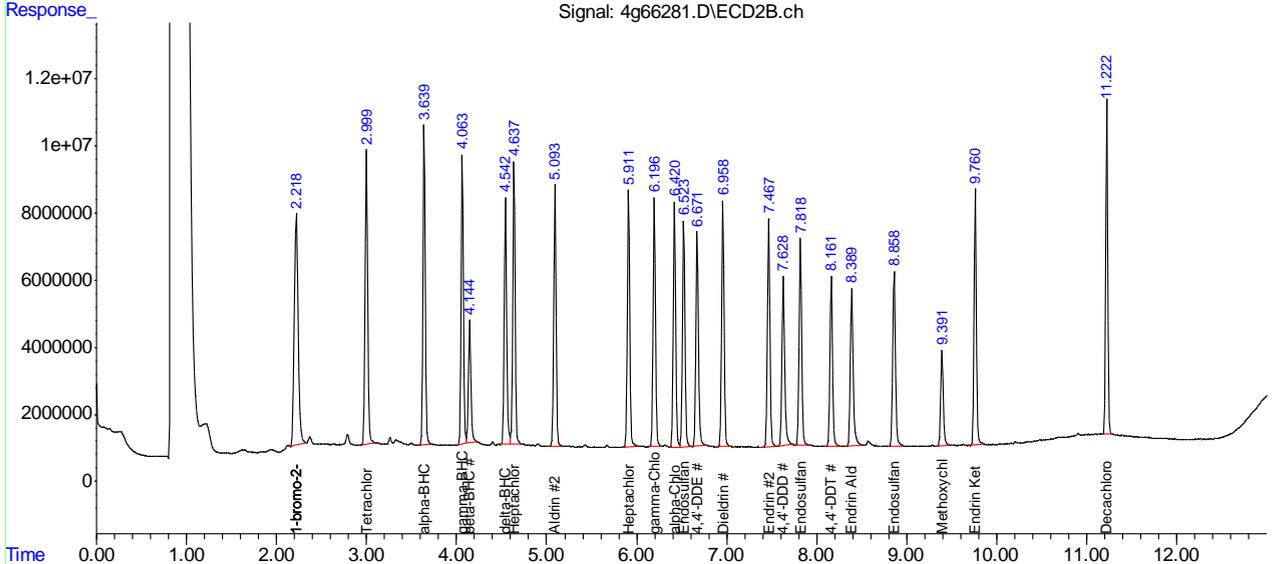
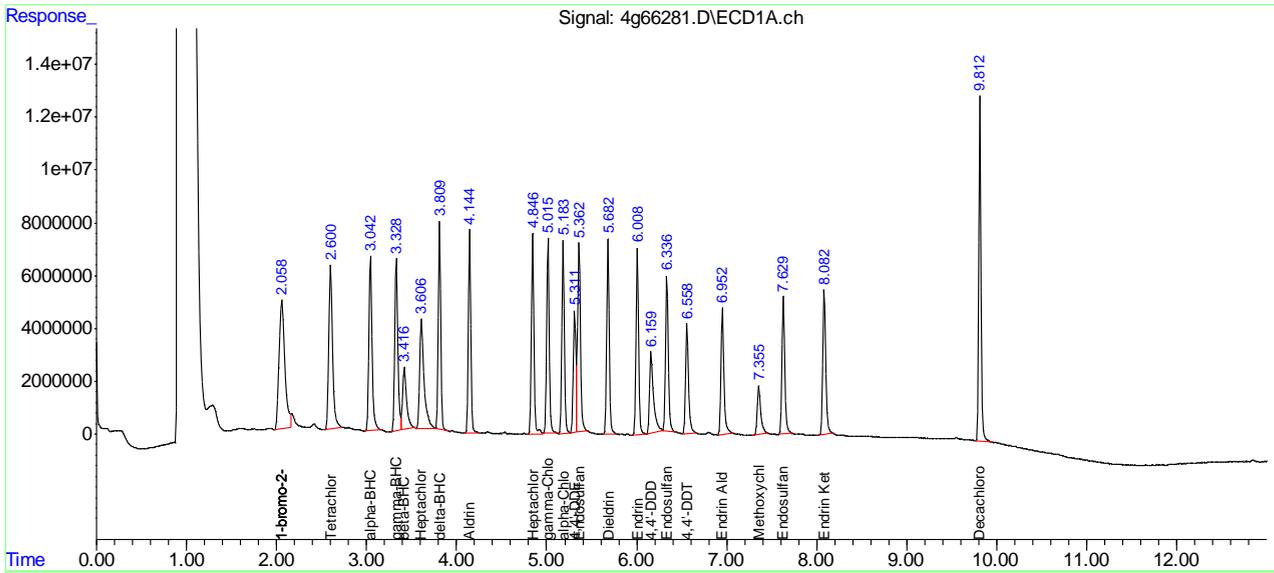
13.31
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66281.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:53 am
 Operator : brittanp
 Sample : op92024-bs1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:29:39 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.3.1
13

Manual Integration Approval Summary

Sample Number: OP92024-BS1 Method: SW846 8081B
Lab FileID: 4G66281.D Analyst approved: 03/21/16 17:30 Brittany Piercy
Injection Time: 03/20/16 11:53 Supervisor approved: 03/23/16 16:21 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	1	4.85	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	9.81	Poor instrument integration

13.3.1.1

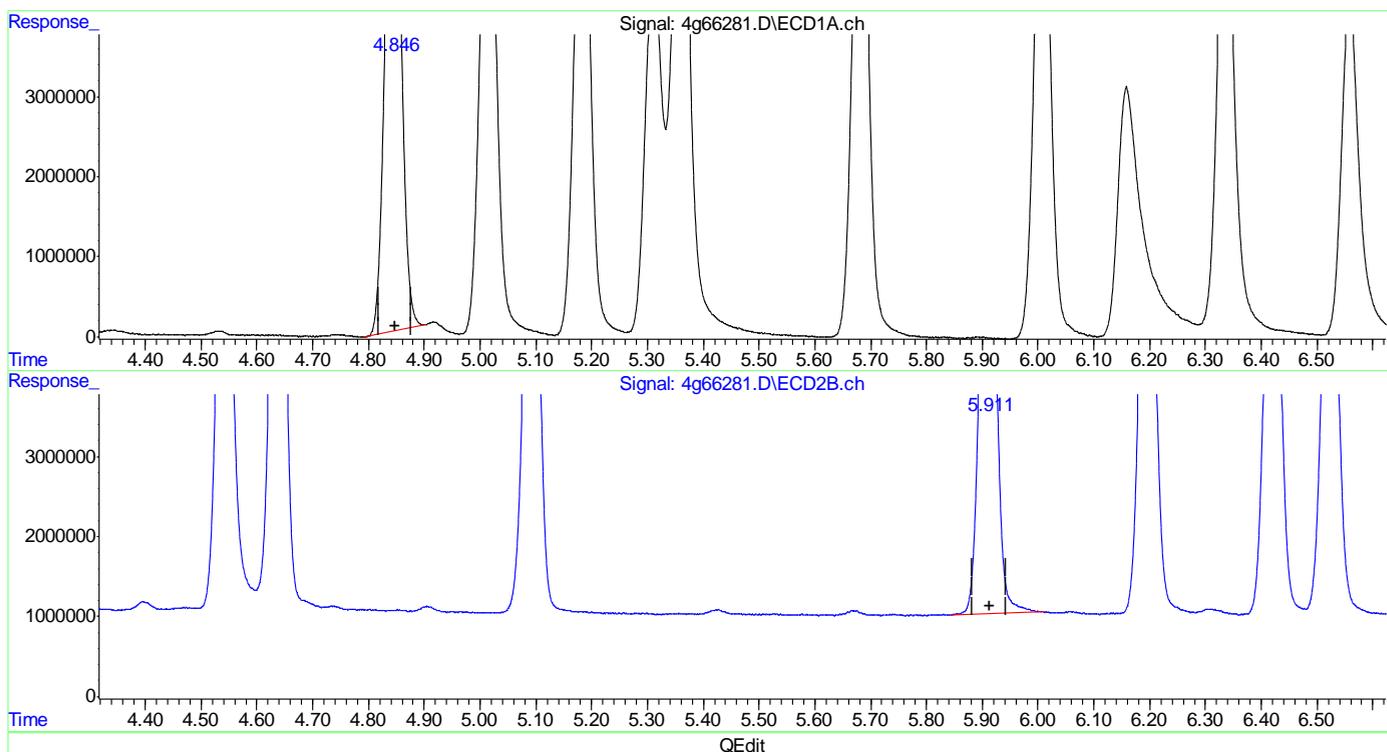
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66281.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:53 am
 Operator : brittanp
 Sample : op92024-bs1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:05:11 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.3.1.2
13

(9) Heptachlor Epoxide (B)
 4.845min 30.382 PPB
 response 141856179

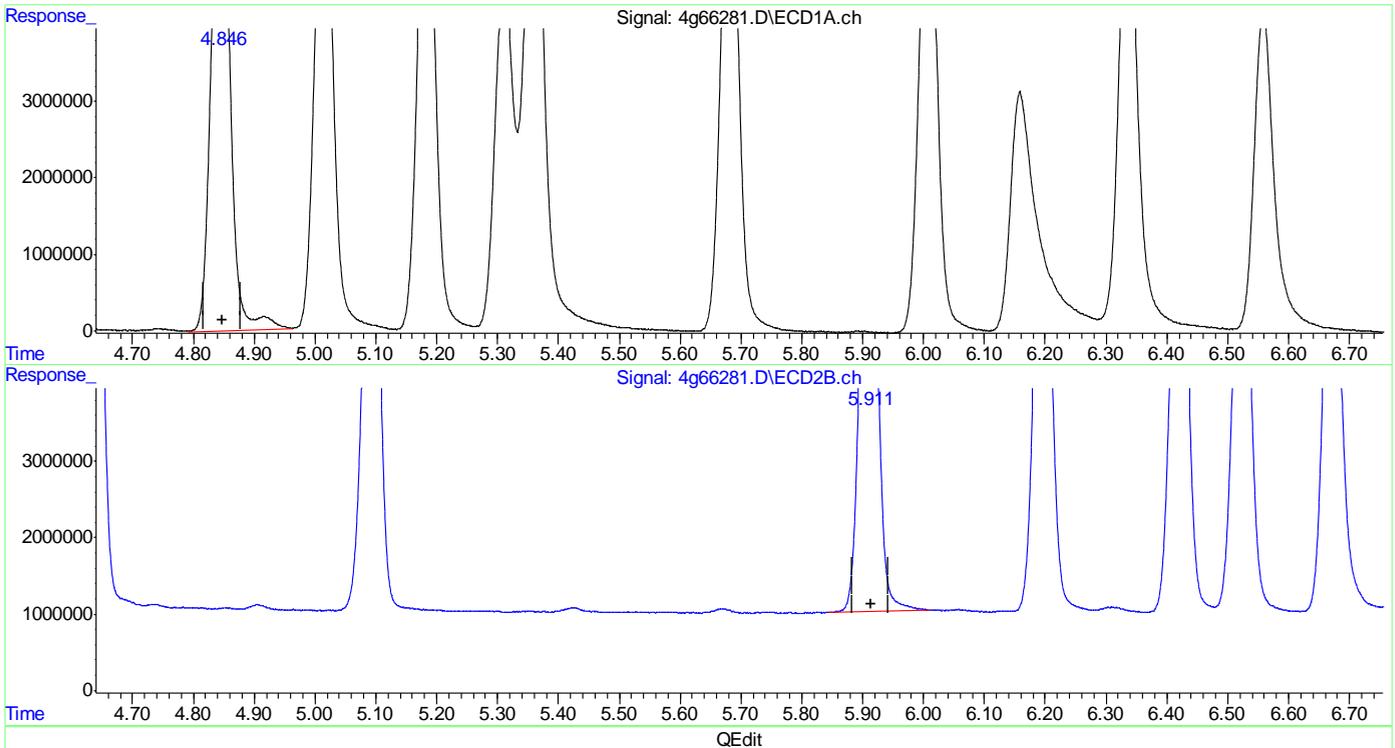
(9) Heptachlor Epoxide #2 (B)
 5.911min 33.266 PPB
 response 140138243

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66281.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:53 am
 Operator : brittanp
 Sample : op92024-bs1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:05:11 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(9) Heptachlor Epoxide (B)
 4.846min 32.205 PPB m
 response 150366675

(9) Heptachlor Epoxide #2 (B)
 5.911min 33.266 PPB
 response 140138243

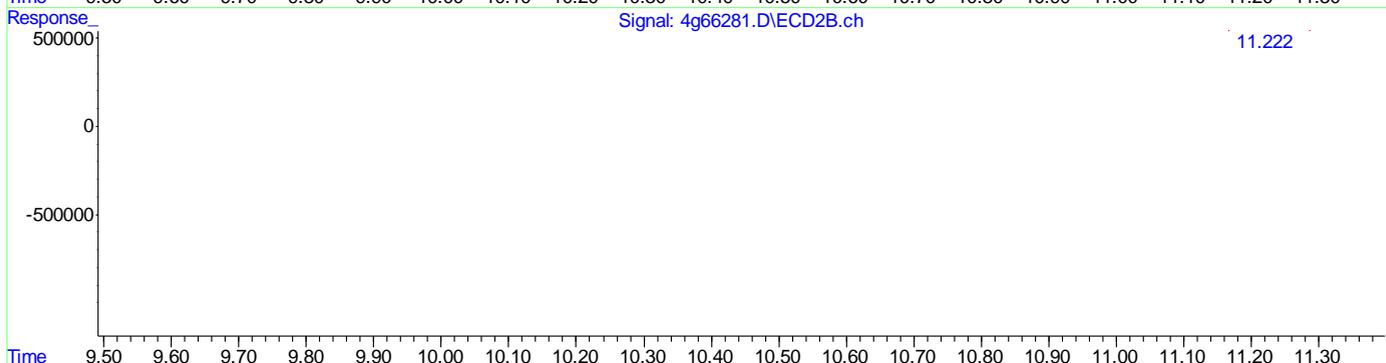
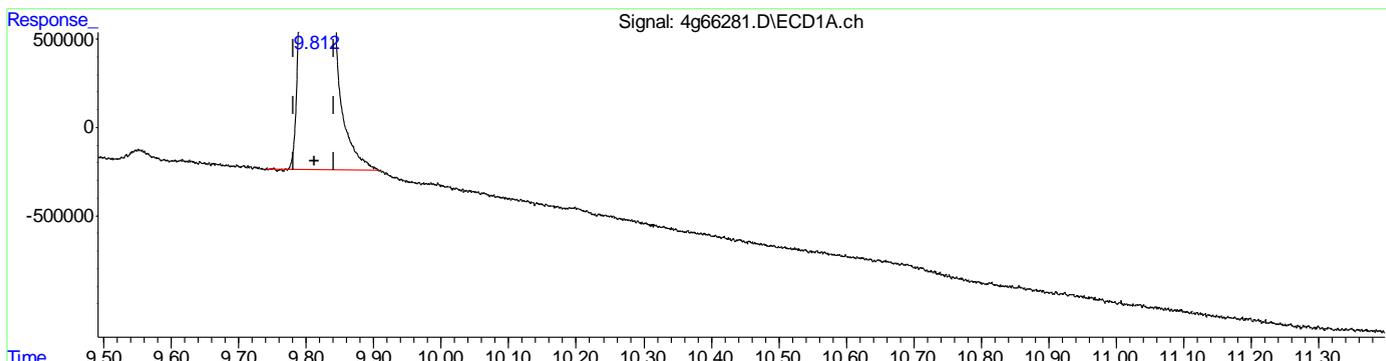
13.3.13
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66281.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:53 am
 Operator : brittanp
 Sample : op92024-bs1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:06:22 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Retention Time (min)	Concentration (PPB)	Response
9.812	50.865	219854477
11.222	53.072	154112725

(+) = Expected Retention Time
 4PST1741.M Mon Mar 21 17:29:35 2016 RPT1

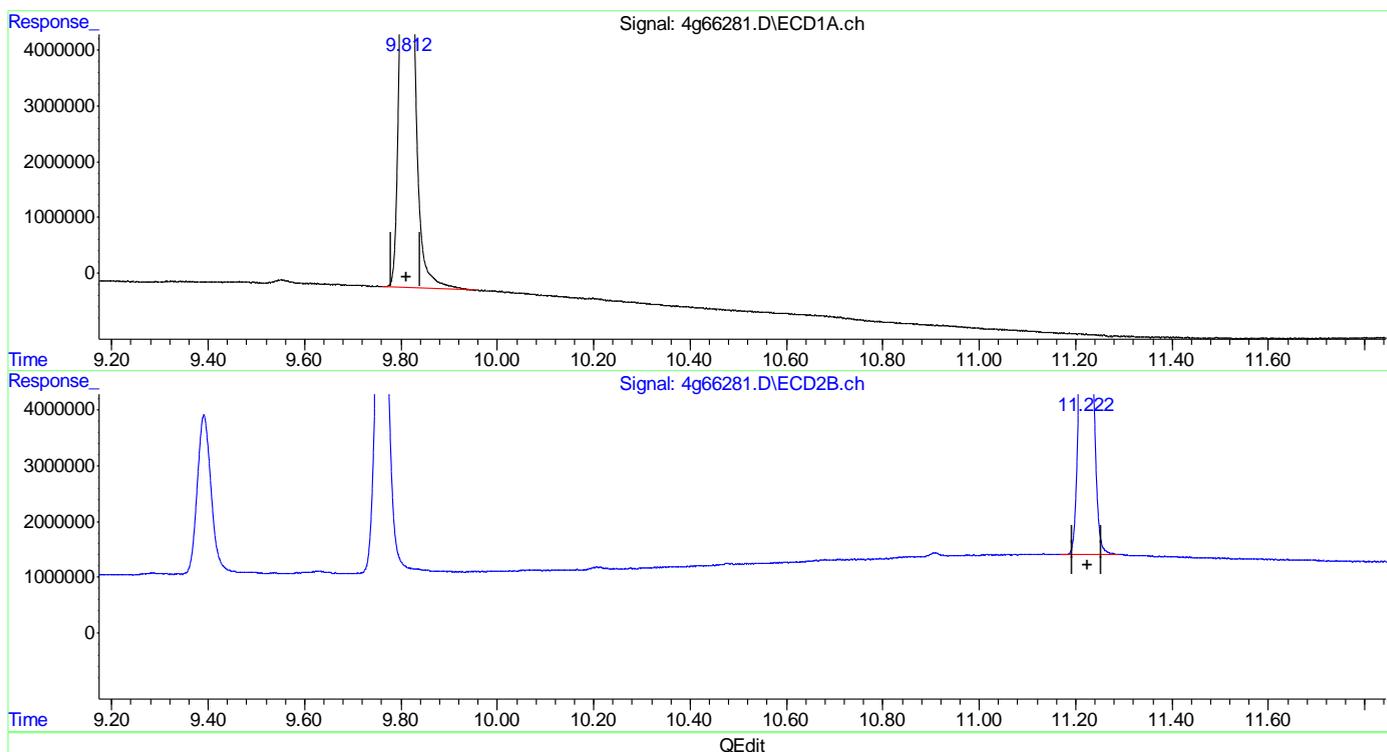
13.3.14
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66281.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 11:53 am
 Operator : brittanp
 Sample : op92024-bs1
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:06:22 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.3.15 13

(24) Decachlorobiphenyl (SA)
 9.812min 51.733 PPB m
 response 223604488

(24) Decachlorobiphenyl #2 (SA)
 11.222min 53.072 PPB
 response 154112725

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.054	2.219	191.9E6	202.5E6	50.000	50.000
25) I 1-bromo-2...	2.054	2.219	191.9E6	202.5E6	50.000	50.000
31) I 1-bromo-2...	2.054	2.219	191.9E6	202.5E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.595	2.995	159.2E6	158.7E6	42.420m	41.237m
Spiked Amount	40.000	Range 30 - 150	Recovery =	106.05%	103.09%	
24) SA Decachlor...	9.811	11.221	226.6E6	156.7E6	58.981	55.062
Spiked Amount	40.000		Recovery =	147.45%	137.66%	
Target Compounds						
3) A alpha-BHC	3.037	3.638	171.5E6	157.4E6	34.089	30.853
4) MA gamma-BHC	3.325	4.062	147.9E6	150.3E6	32.719	32.863
5) MA Heptachlor	3.594	4.637	140.1E6	142.3E6	31.989m	30.833
6) B beta-BHC	3.403	4.143	70315458	72792141	30.716m	35.618m
7) B delta-BHC	3.809	4.540	145.1E6	142.0E6	33.525	33.318
8) MB Aldrin	4.144	5.092	137.8E6	143.1E6	30.900	31.164
9) B Heptachlo...	4.844	5.910	149.0E6	184.0E6	35.899	44.570
10) B gamma-Chl...	5.012	6.196	161.7E6	140.3E6	39.602	33.307
11) B alpha-Chl...	5.181	6.421	155.0E6	136.6E6	38.454	33.170
12) A Endosulfan I	5.359	6.523	145.0E6	129.3E6	34.617	31.991
13) B 4,4'-DDE	5.299	6.671	118.5E6	125.4E6	35.064	31.817
14) MA Dieldrin	5.679	6.958	144.4E6	142.0E6	35.129	34.817
15) MA Endrin	6.006	7.467	144.7E6	137.7E6	40.137	37.316
16) A 4,4'-DDD	6.143	7.626	101.5E6	107.2E6	34.613	30.421
17) B Endosulfa...	6.331	7.817	131.2E6	124.4E6	37.069	33.649
18) MA 4,4'-DDT	6.552	8.160	101.5E6	117.8E6	41.471	42.930
19) B Endrin Al...	6.946	8.387	110.5E6	88324293	37.360	28.103
20) B Endosulfa...	7.625	8.859	126.7E6	109.4E6	43.156	34.529
21) A Methoxychlor	7.344	9.389	55632937	59422807	48.612	42.829
23) B Endrin Ke...	8.076	9.759	129.5E6	140.3E6	37.751	38.265

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

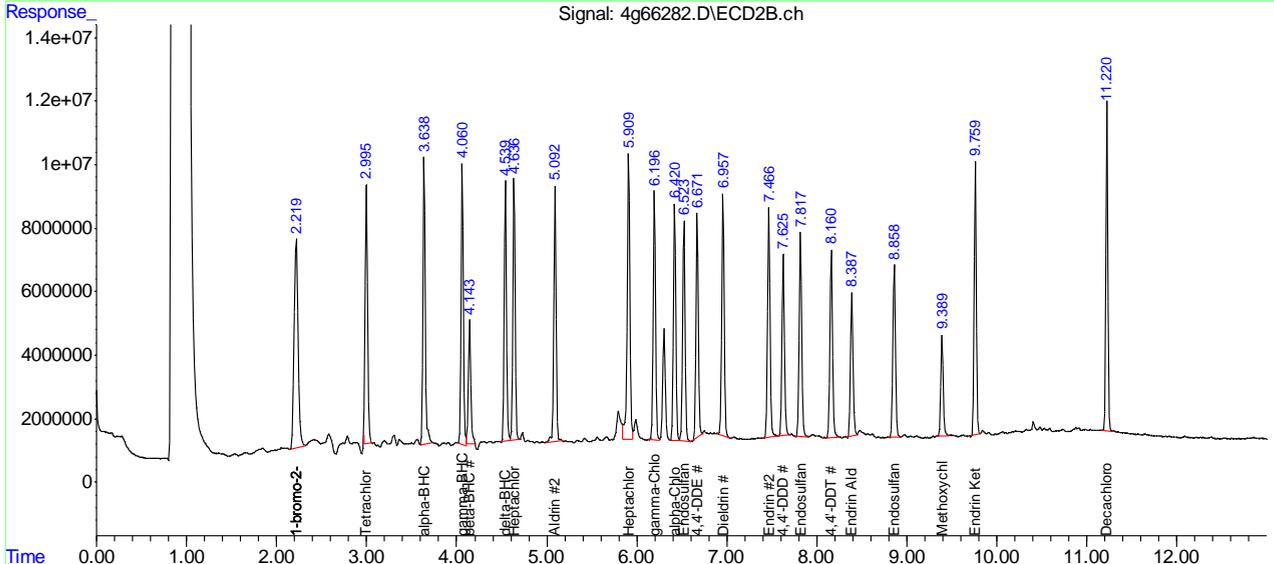
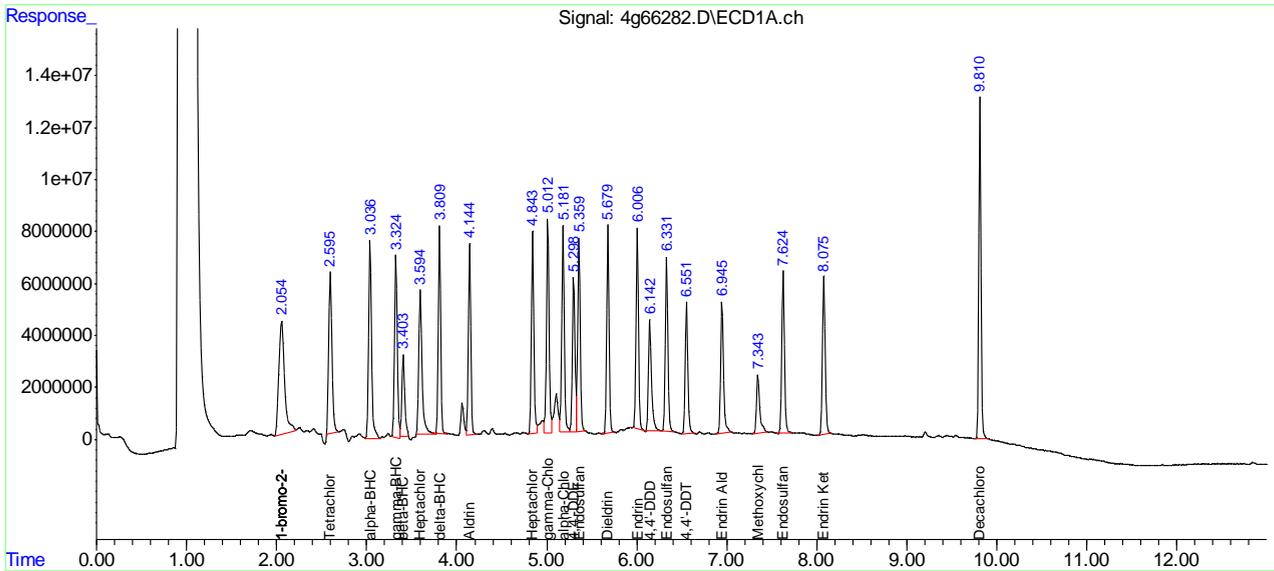
13.4.1
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.4.1
13

Manual Integration Approval Summary

Sample Number: OP92024-MS Method: SW846 8081B
Lab FileID: 4G66282.D Analyst approved: 03/21/16 17:24 Brittany Piercy
Injection Time: 03/20/16 12:07 Supervisor approved: 03/22/16 17:36 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.60	Poor instrument integration
Tetrachloro-m-xylene	877-09-8	2	3.00	Poor instrument integration
beta-BHC	319-85-7	1	3.40	Poor instrument integration
Heptachlor	76-44-8	1	3.59	Poor instrument integration
beta-BHC	319-85-7	2	4.14	Poor instrument integration

13.4.1.1

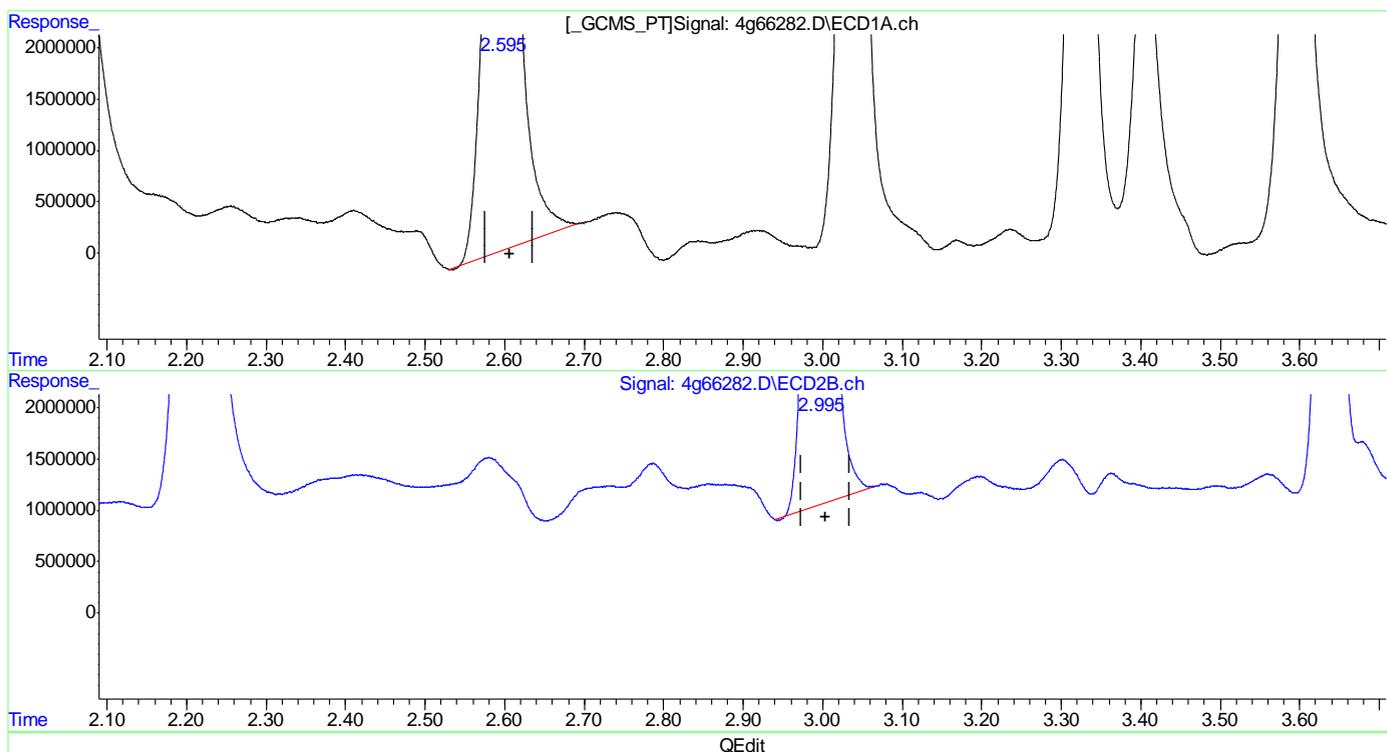
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:08:23 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)

2.596min 45.663 PPB
 response 171331944

(2) Tetrachloro-m-xylene #2 (SAB)

2.996min 43.273 PPB
 response 166532425

(+) = Expected Retention Time

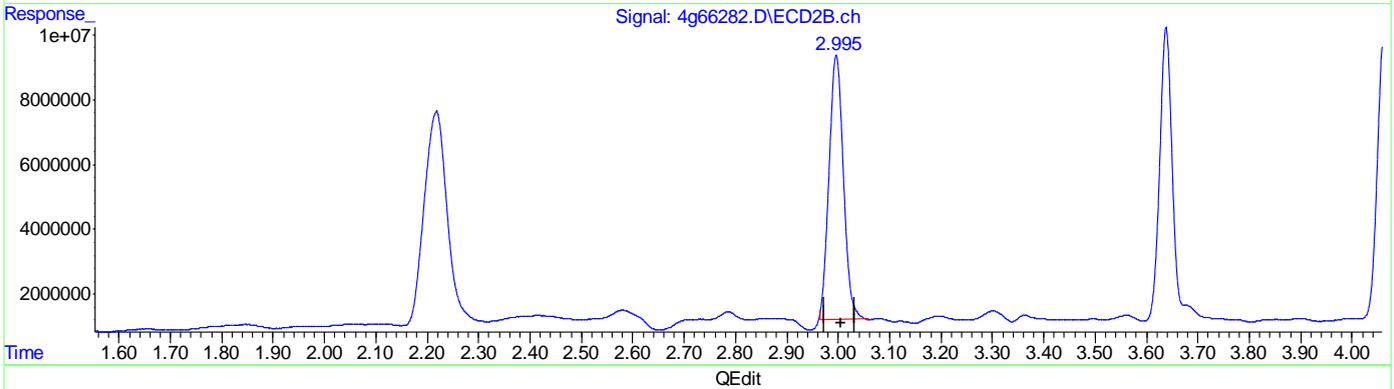
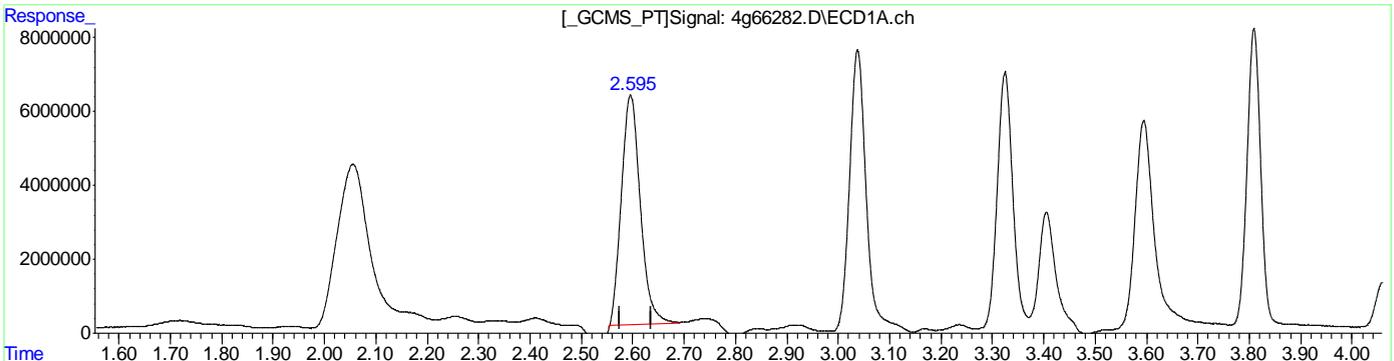
13.4.1.2
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:08:23 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)
 2.595min 42.420 PPB m
 response 159167159

(2) Tetrachloro-m-xylene #2 (SAB)
 2.995min 41.237 PPB m
 response 158696167

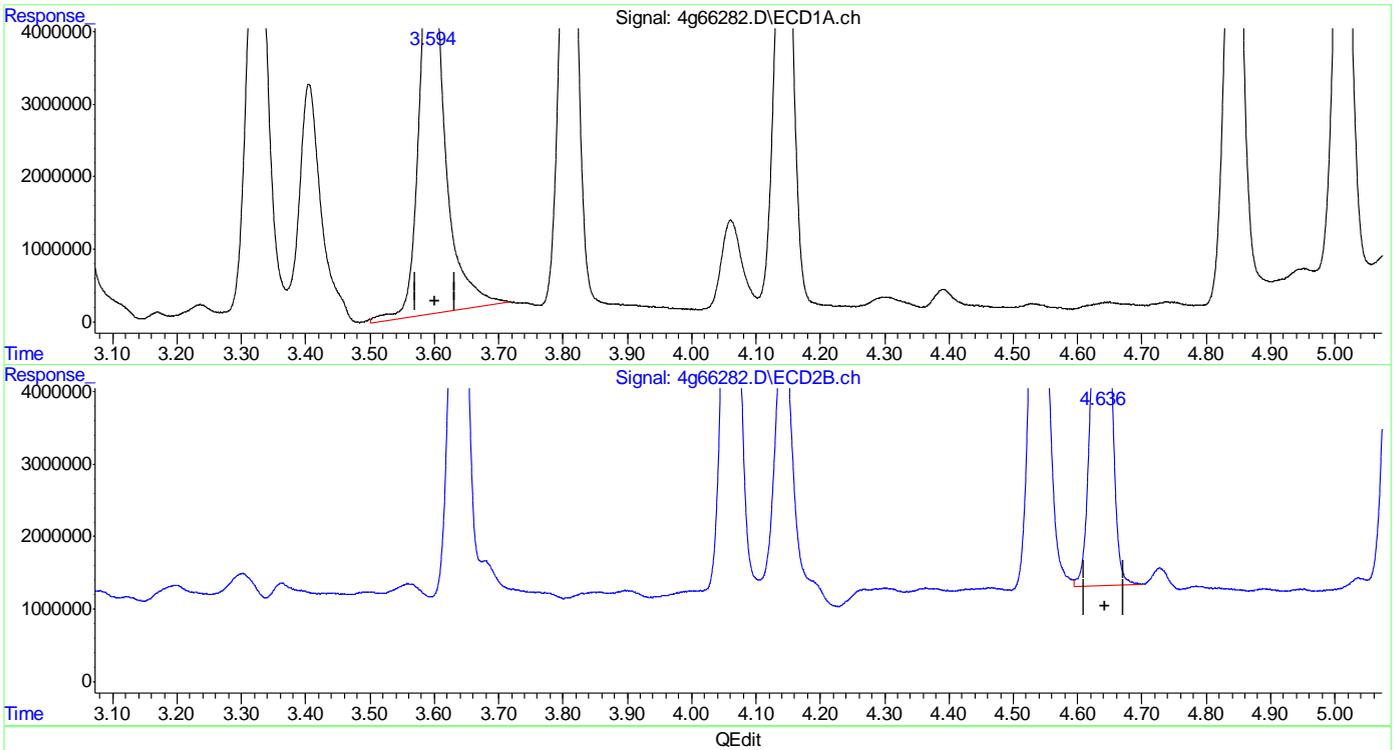
13.4.1.3
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:08:23 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(5) Heptachlor (MA)
 3.595min 33.922 PPB
 response 148532126

(5) Heptachlor #2 (MA)
 4.637min 30.833 PPB
 response 142316090

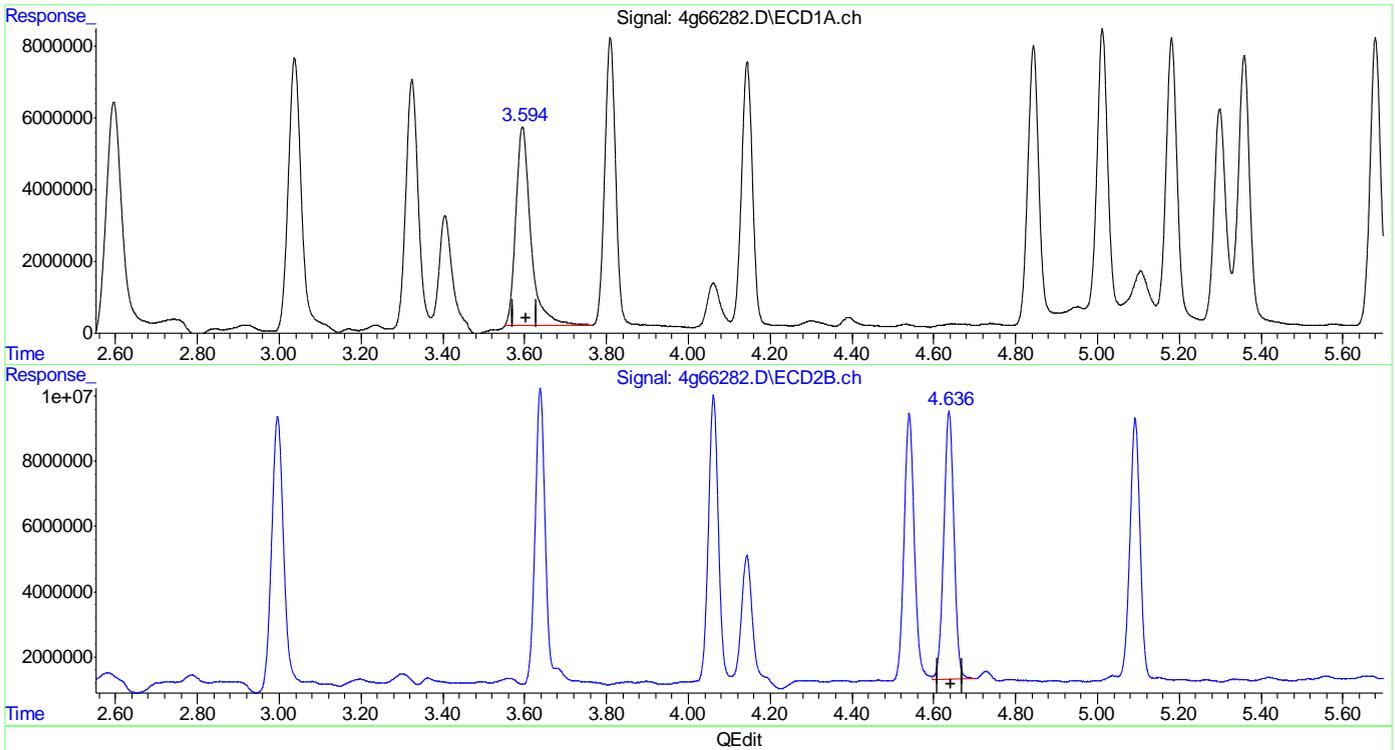
13.4.1.4
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:08:23 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(5) Heptachlor (MA)
 3.594min 31.989 PPB m
 response 140068012

(5) Heptachlor #2 (MA)
 4.637min 30.833 PPB
 response 142316090

(+) = Expected Retention Time
 4PST1741.M Mon Mar 21 17:09:01 2016 RPT1

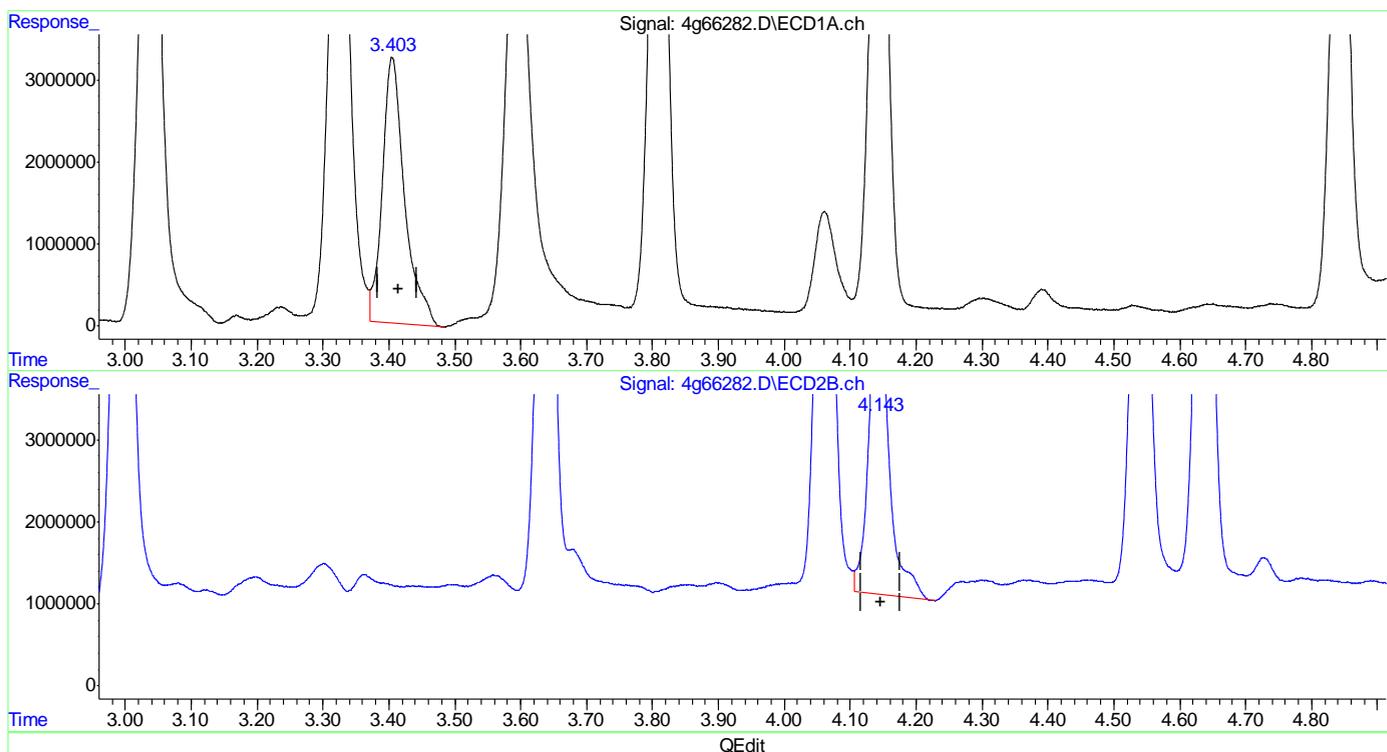
13.4.15
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:08:23 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(6) beta-BHC (B)
 3.405min 33.360 PPB
 response 76367234

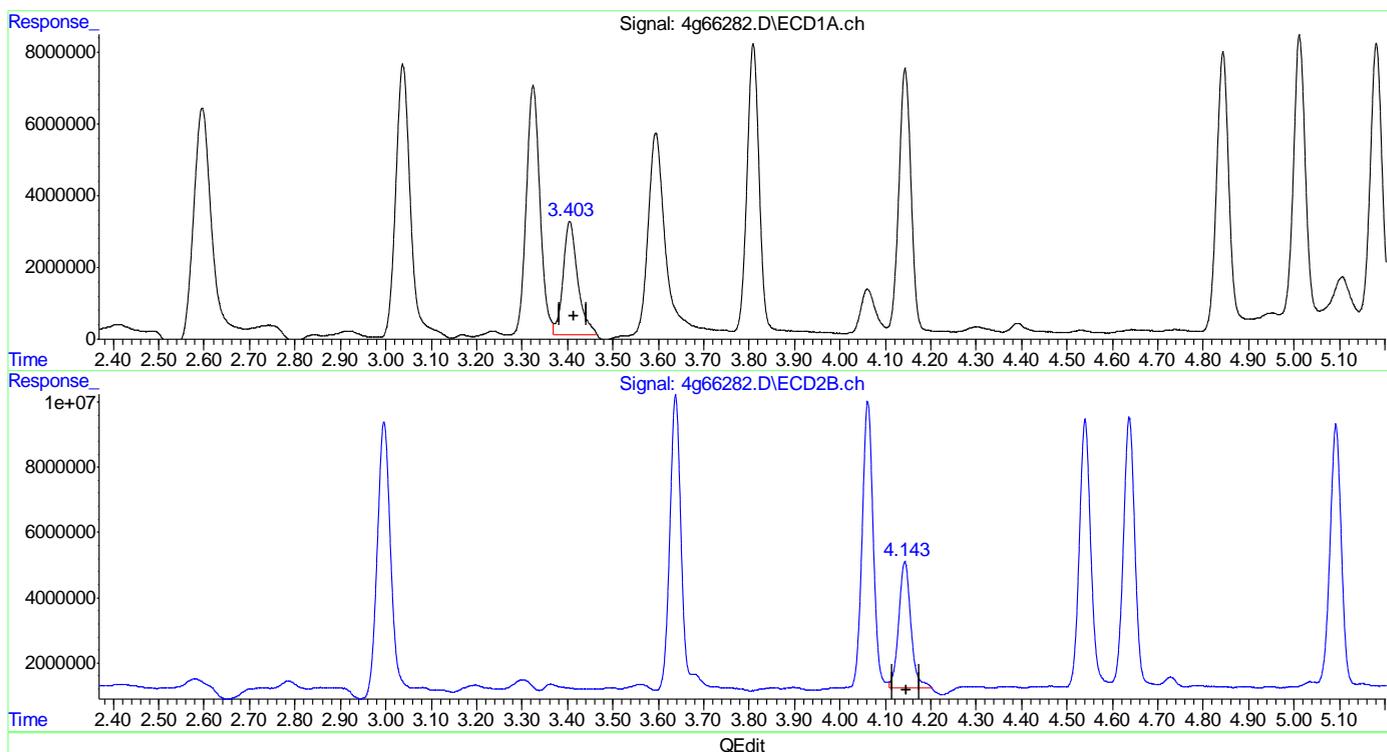
(6) beta-BHC #2 (B)
 4.143min 39.321 PPB
 response 80359326

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66282.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:07 pm
 Operator : brittanp
 Sample : op92024-ms
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:08:23 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.4.17
13

(6) beta-BHC (B)
 3.403min 30.716 PPB m
 response 70315458

(6) beta-BHC #2 (B)
 4.143min 35.618 PPB m
 response 72792141

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:11:57 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	2.058	2.220	188.9E6	199.0E6	50.000	50.000
25)	I 1-bromo-2...	2.058	2.220	188.9E6	199.0E6	50.000	50.000
31)	I 1-bromo-2...	2.058	2.220	188.9E6	199.0E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.597	2.999	185.8E6	186.7E6	50.320m	49.356m
	Spiked Amount	40.000	Range 30 - 150	Recovery =	125.80%	123.39%	
24)	SA Decachlor...	9.809	11.220	271.8E6	186.6E6	71.878	66.700
	Spiked Amount	40.000		Recovery =	179.69%	166.75%	
Target Compounds							
3)	A alpha-BHC	3.039	3.640	194.2E6	178.4E6	39.224	35.573
4)	MA gamma-BHC	3.326	4.063	167.2E6	170.2E6	37.594	37.849
5)	MA Heptachlor	3.594	4.638	161.4E6	160.5E6	37.461m	35.367
6)	B beta-BHC	3.405	4.144	77210564	79065723	34.275m	39.360m
7)	B delta-BHC	3.810	4.541	166.4E6	162.5E6	39.079	38.801
8)	MB Aldrin	4.144	5.093	155.2E6	161.4E6	35.370	35.764
9)	B Heptachlo...	4.843	5.910	175.4E6	209.1E6	42.942	51.538
10)	B gamma-Chl...	5.012	6.196	182.1E6	158.3E6	45.317	38.229
11)	B alpha-Chl...	5.182	6.421	174.6E6	153.6E6	44.037	37.942
12)	A Endosulfan I	5.359	6.523	163.1E6	145.2E6	39.560	36.561
13)	B 4,4'-DDE	5.298	6.670	137.7E6	142.6E6	41.401	36.808m
14)	MA Dieldrin	5.679	6.957	164.2E6	161.5E6	40.593	40.291
15)	MA Endrin	6.005	7.466	165.3E6	158.9E6	46.608	43.809
16)	A 4,4'-DDD	6.141	7.625	117.2E6	122.8E6	40.623	35.429
17)	B Endosulfa...	6.330	7.818	149.6E6	141.3E6	42.967	38.867
18)	MA 4,4'-DDT	6.550	8.160	118.7E6	135.9E6	48.109	49.613
19)	B Endrin Al...	6.946	8.387	126.2E6	100.3E6	43.366	32.465 #
20)	B Endosulfa...	7.623	8.858	145.0E6	125.1E6	50.220	40.166
21)	A Methoxychlor	7.343	9.390	64921371	68348020	57.649	50.119
23)	B Endrin Ke...	8.076	9.758	147.8E6	160.1E6	43.773	44.427

SemiQuant Compounds - Not Calibrated on this Instrument

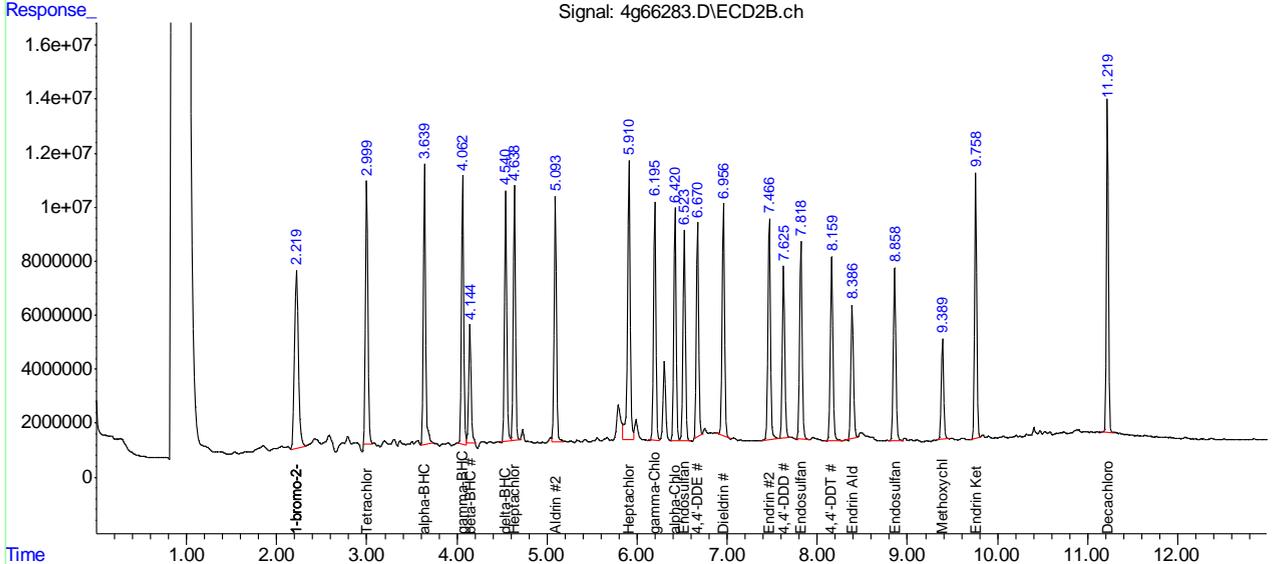
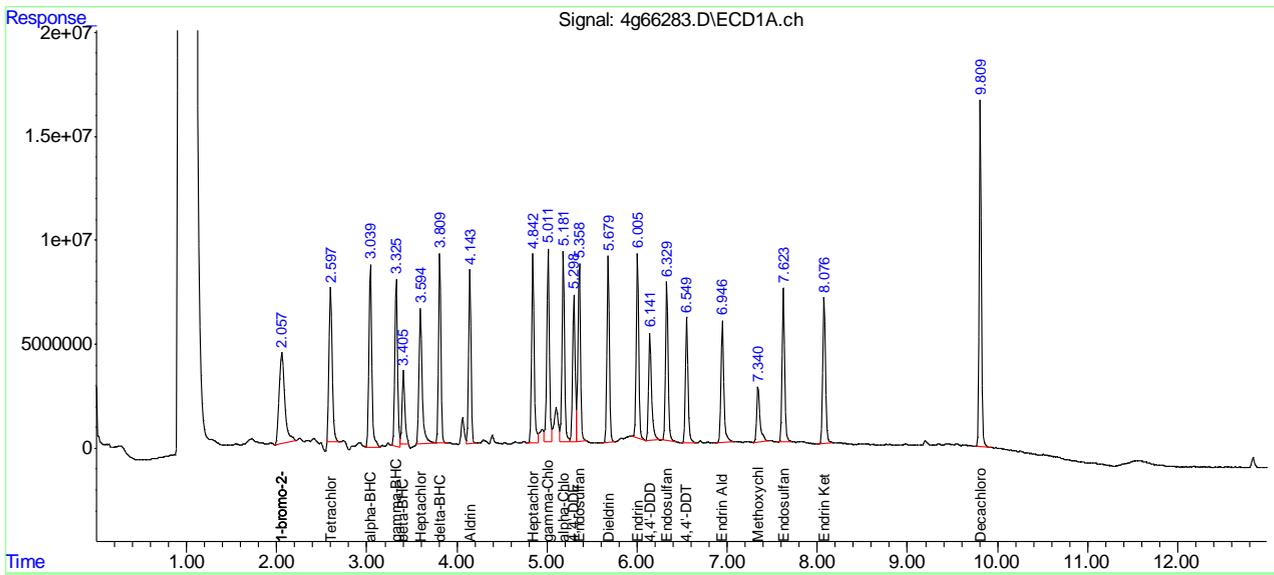
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:11:57 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.4.2
13

Manual Integration Approval Summary

Sample Number: OP92024-MSD
Lab FileID: 4G66283.D
Injection Time: 03/20/16 12:22

Method: SW846 8081B
Analyst approved: 03/21/16 17:24 Brittany Piercy
Supervisor approved: 03/22/16 17:36 Gwendolyn Burns

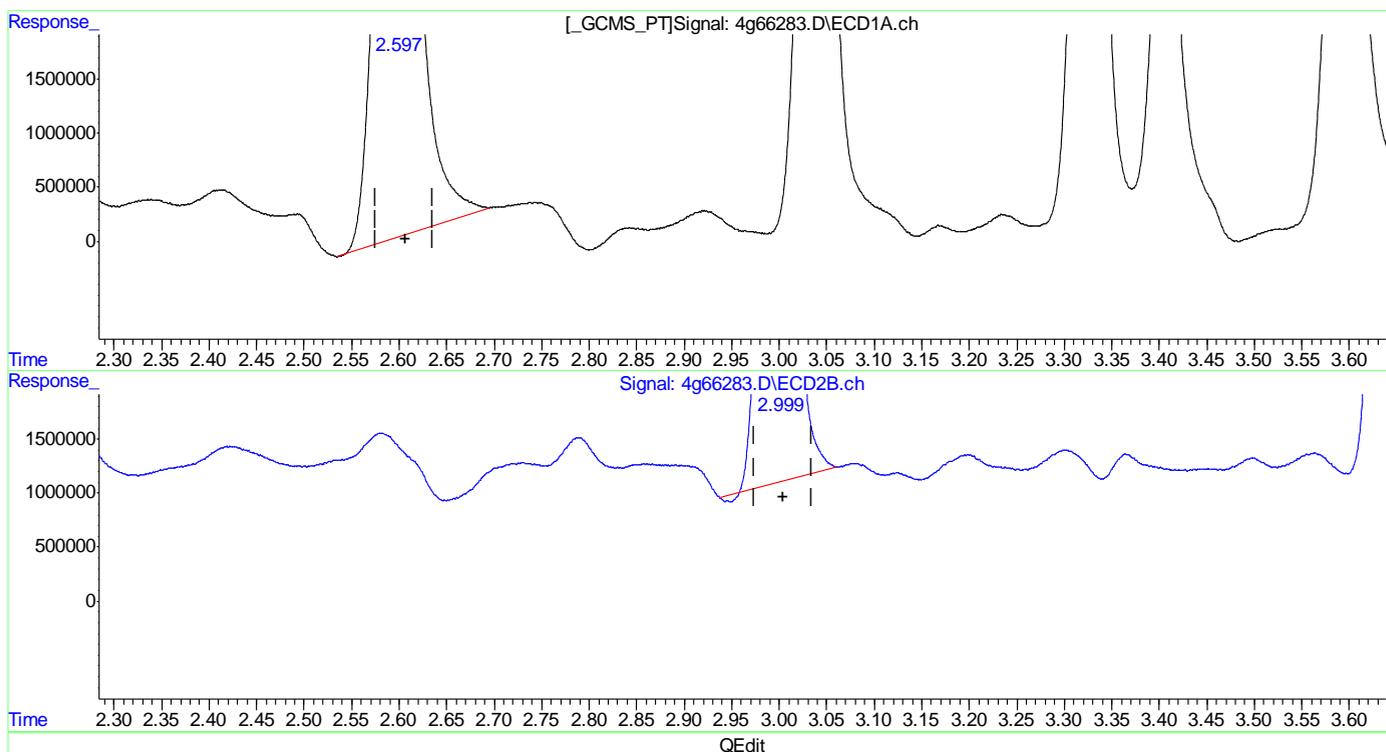
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.60	Poor instrument integration
Tetrachloro-m-xylene	877-09-8	2	3.00	Poor instrument integration
beta-BHC	319-85-7	1	3.41	Poor instrument integration
Heptachlor	76-44-8	1	3.59	Poor instrument integration
beta-BHC	319-85-7	2	4.14	Poor instrument integration
4,4'-DDE	72-55-9	2	6.67	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)

2.597min 54.605 PPB

response 201613964

(2) Tetrachloro-m-xylene #2 (SAB)

2.999min 50.724 PPB

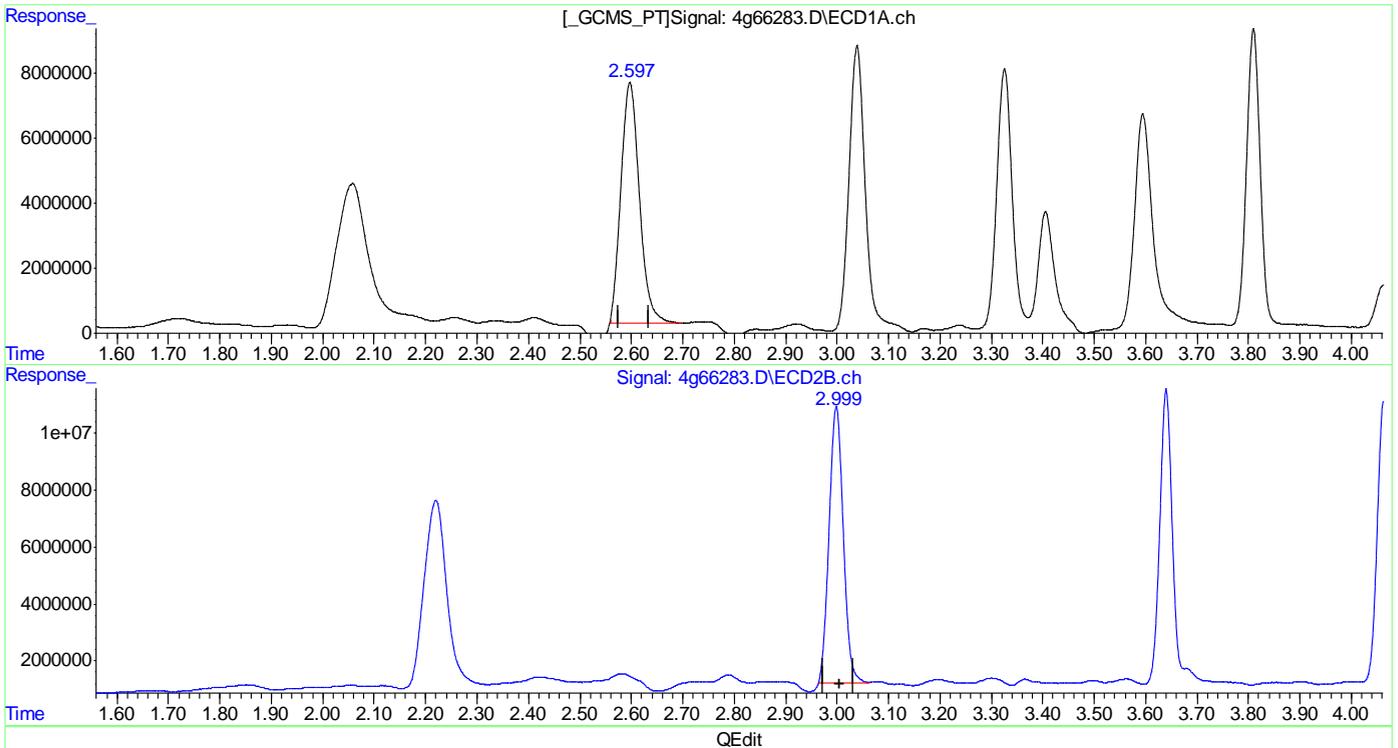
response 191871735

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)

2.597min 50.320 PPB m

response 185793953

(2) Tetrachloro-m-xylene #2 (SAB)

2.999min 49.356 PPB m

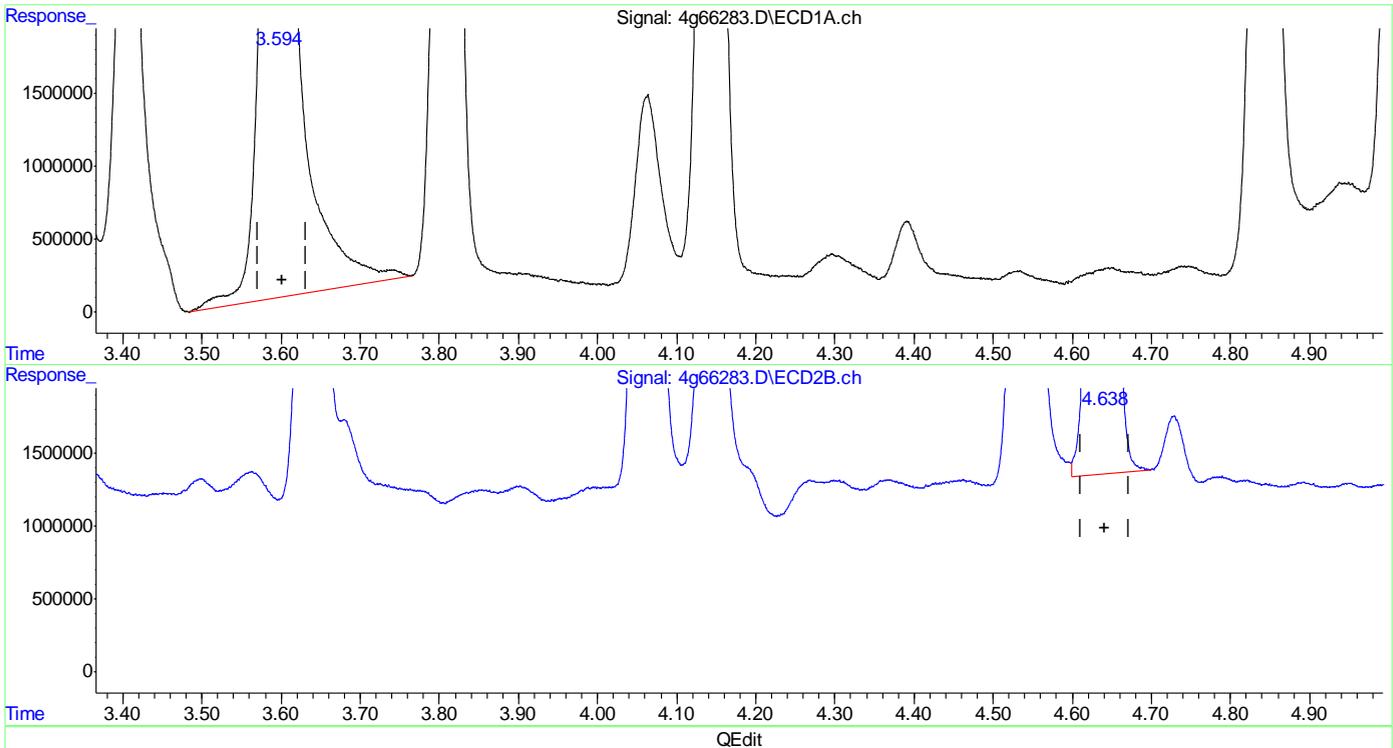
response 186695529

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(5) Heptachlor (MA)
 3.595min 40.643 PPB
 response 175122020

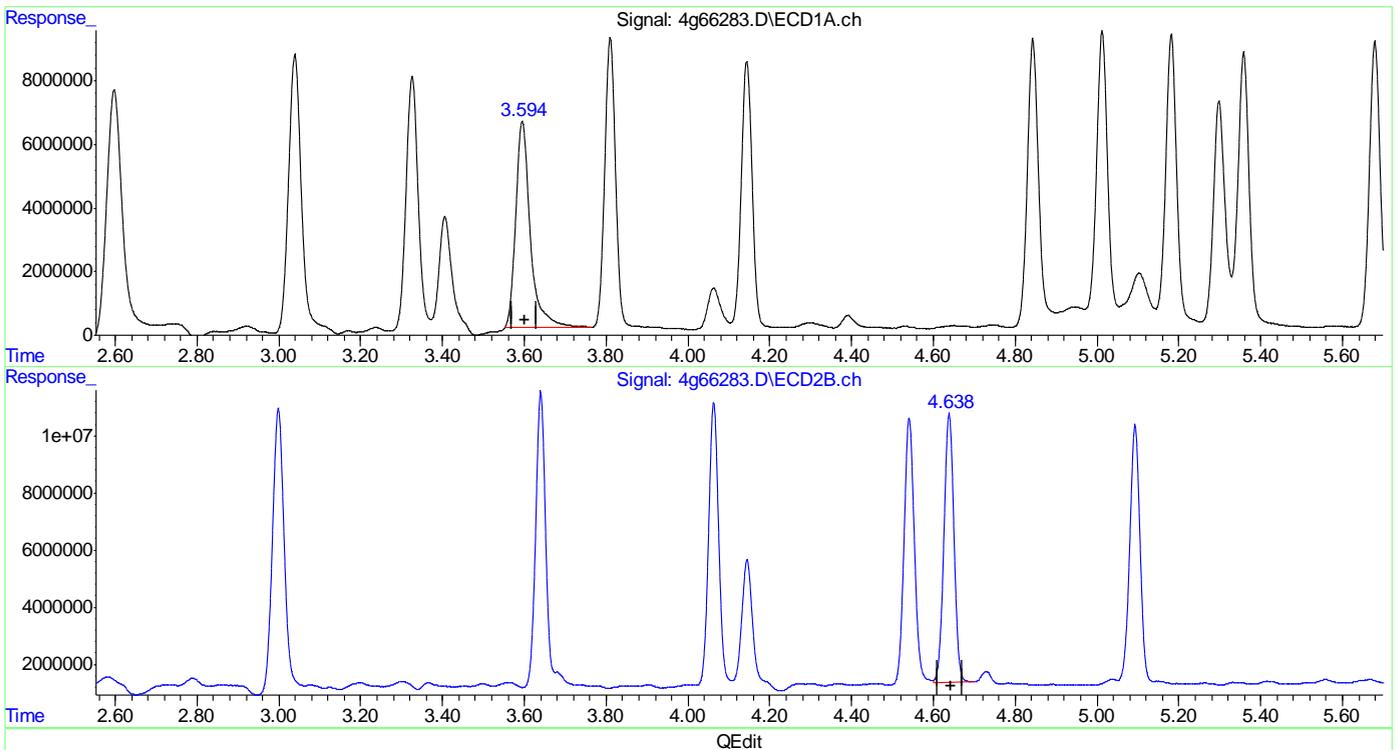
(5) Heptachlor #2 (MA)
 4.638min 35.367 PPB
 response 160455272

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(5) Heptachlor (MA)
 3.594min 37.461 PPB m
 response 161410647

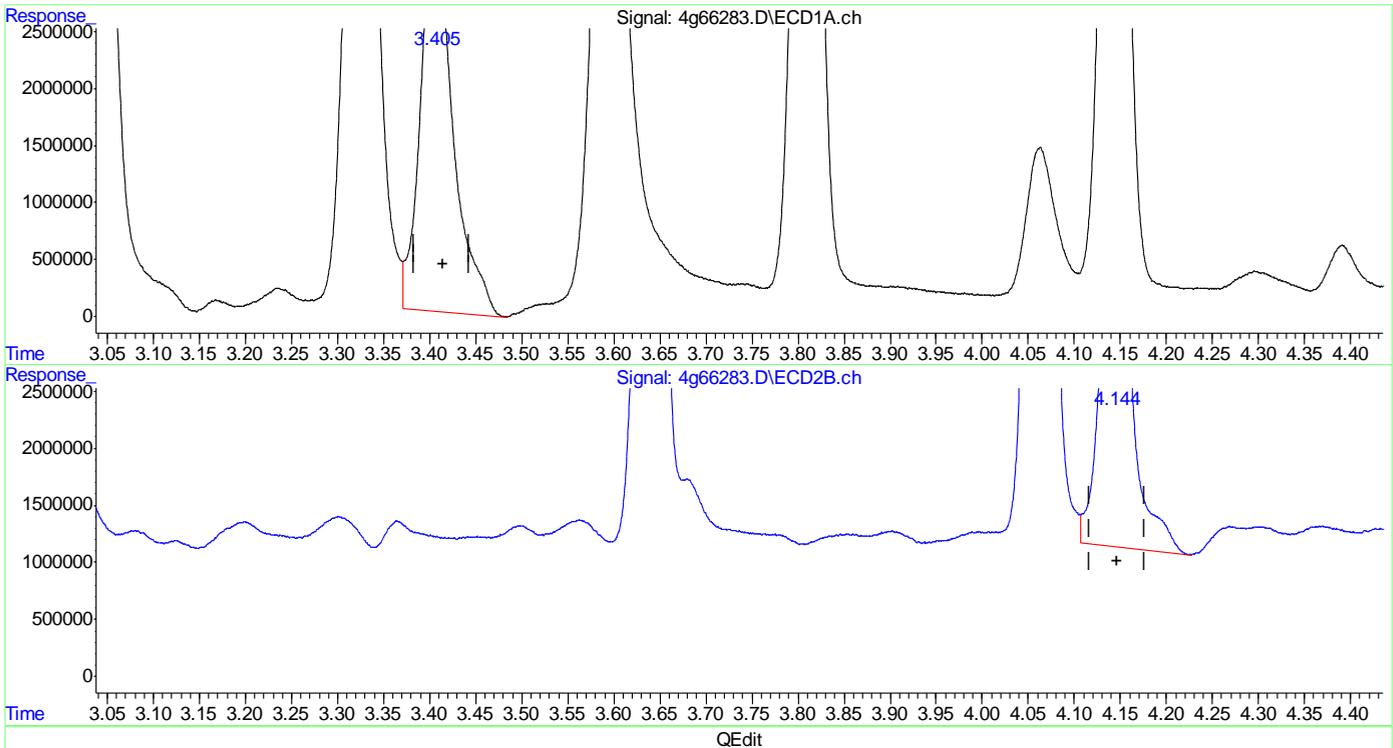
(5) Heptachlor #2 (MA)
 4.638min 35.367 PPB
 response 160455272

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(6) beta-BHC (B)
 3.405min 37.920 PPB
 response 85421596

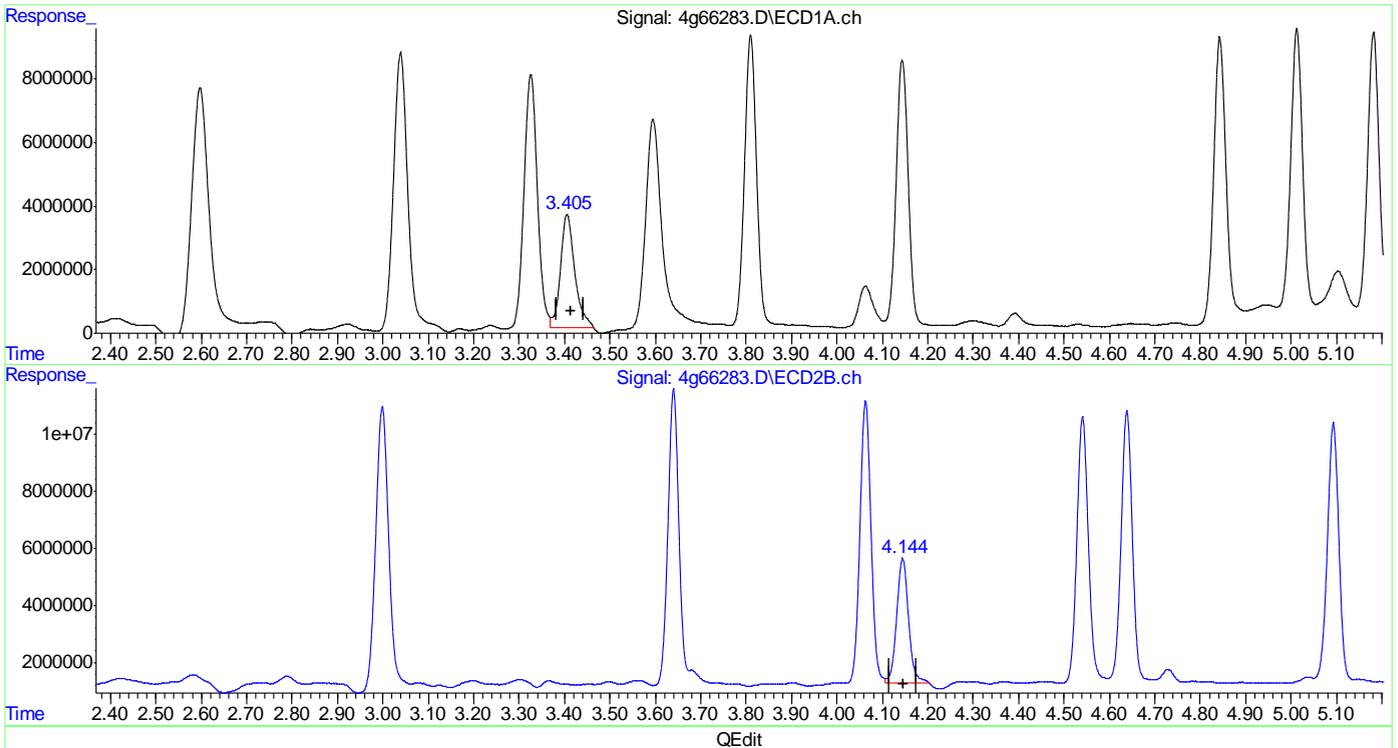
(6) beta-BHC #2 (B)
 4.145min 44.082 PPB
 response 88550914

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(6) beta-BHC (B)
 3.405min 34.275 PPB m
 response 77210564

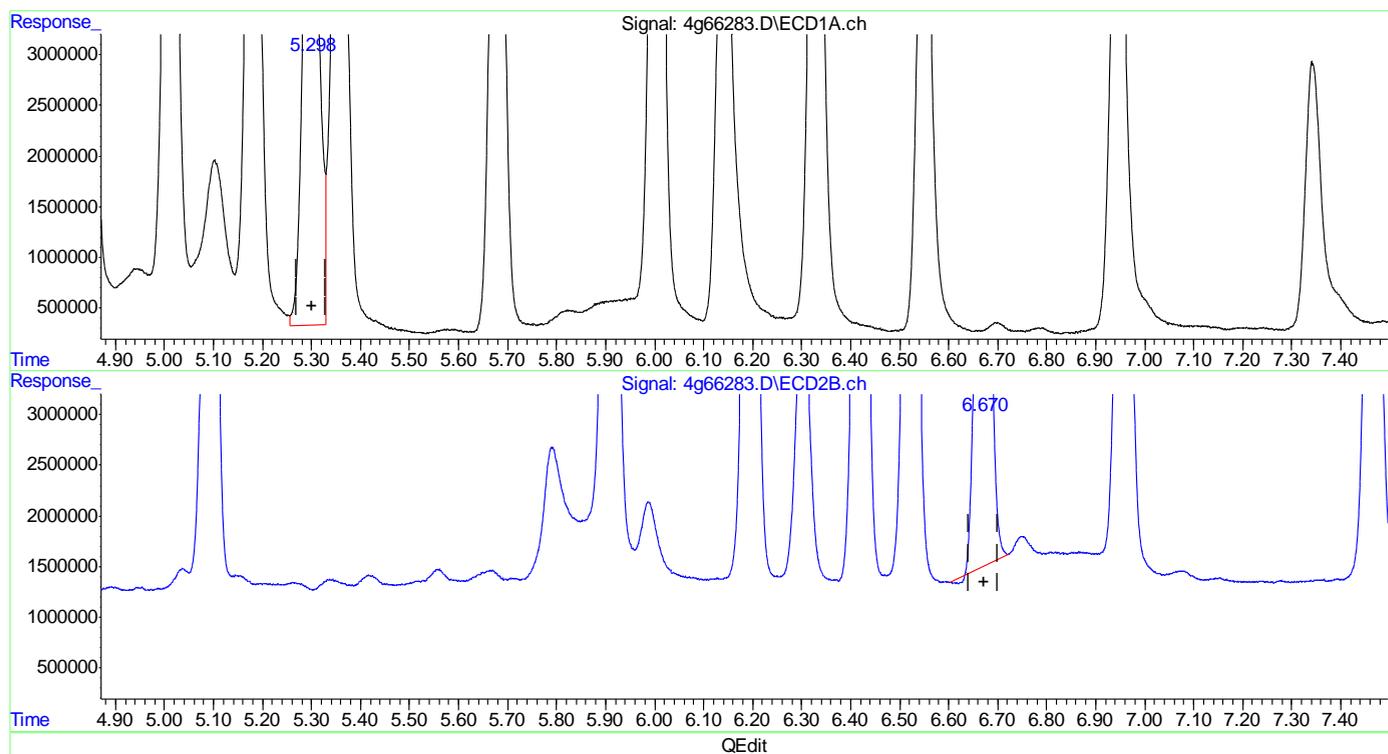
(6) beta-BHC #2 (B)
 4.144min 39.360 PPB m
 response 79065723

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(13) 4,4'-DDE (B)
 5.298min 41.401 PPB
 response 137716712

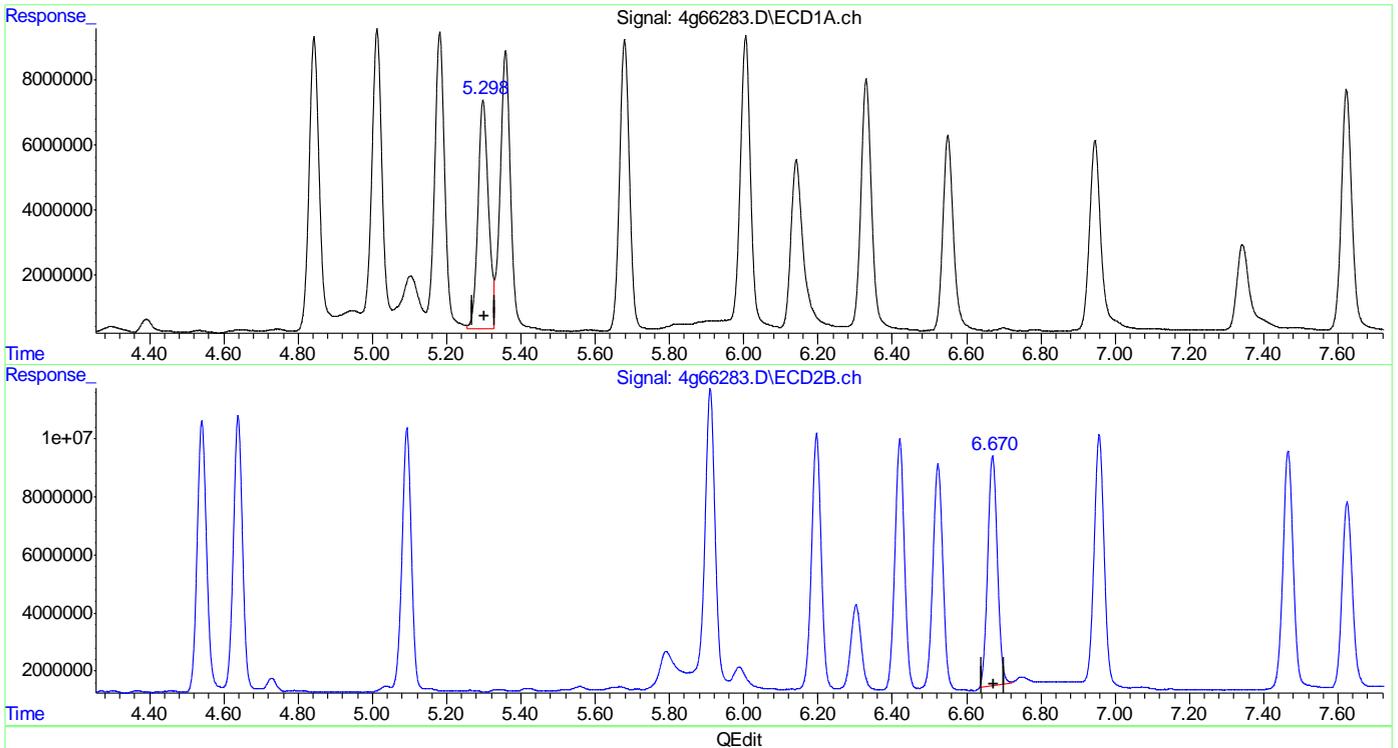
(13) 4,4'-DDE #2 (B)
 6.670min 36.692 PPB
 response 142151914

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66283.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 12:22 pm
 Operator : brittanp
 Sample : op92024-msd
 Misc : op92024,g4g1744,1000,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 17:10:30 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(13) 4,4'-DDE (B)
 5.298min 41.401 PPB
 response 137716712

(13) 4,4'-DDE #2 (B)
 6.670min 36.808 PPB m
 response 142603759

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:54:13 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	2.060	2.223	219.6E6	222.4E6	50.000	50.000
25)	I 1-bromo-2...	2.060	2.223	219.6E6	222.4E6	50.000	50.000
31)	I 1-bromo-2...	2.060	2.223	219.6E6	222.4E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.605	3.000	86111238	80872020	20.058	19.134
	Spiked Amount	40.000	Range	30 - 150	Recovery	=	50.14% 47.84%
24)	SA Decachlor...	9.811	11.222	93522762	65854461	21.274	21.069
	Spiked Amount	40.000		Recovery	=	53.19%	52.67%
Target Compounds							
13)	B 4,4'-DDE	5.303	6.674	2634401	2876000	0.681m	0.664
15)	MA Endrin	6.013	7.469	241.8E6	214.4E6	58.622	52.890
16)	A 4,4'-DDD	6.155	7.631	8385130	7051784	2.500m	1.822m#
18)	MA 4,4'-DDT	6.551	8.161	388.1E6	362.3E6	112.201m	106.069
19)	B Endrin Al...	6.953	8.387	4194694	3242234	1.240m	0.939
23)	B Endrin Ke...	8.081	9.761	9829510	10057782	2.504m	2.497

SemiQuant Compounds - Not Calibrated on this Instrument

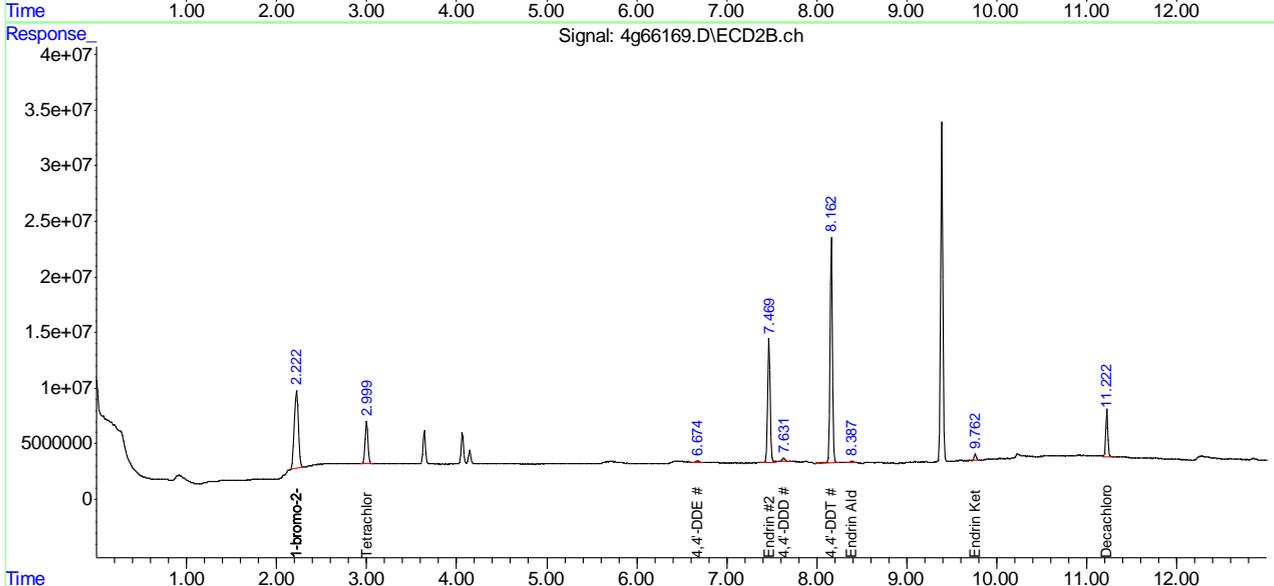
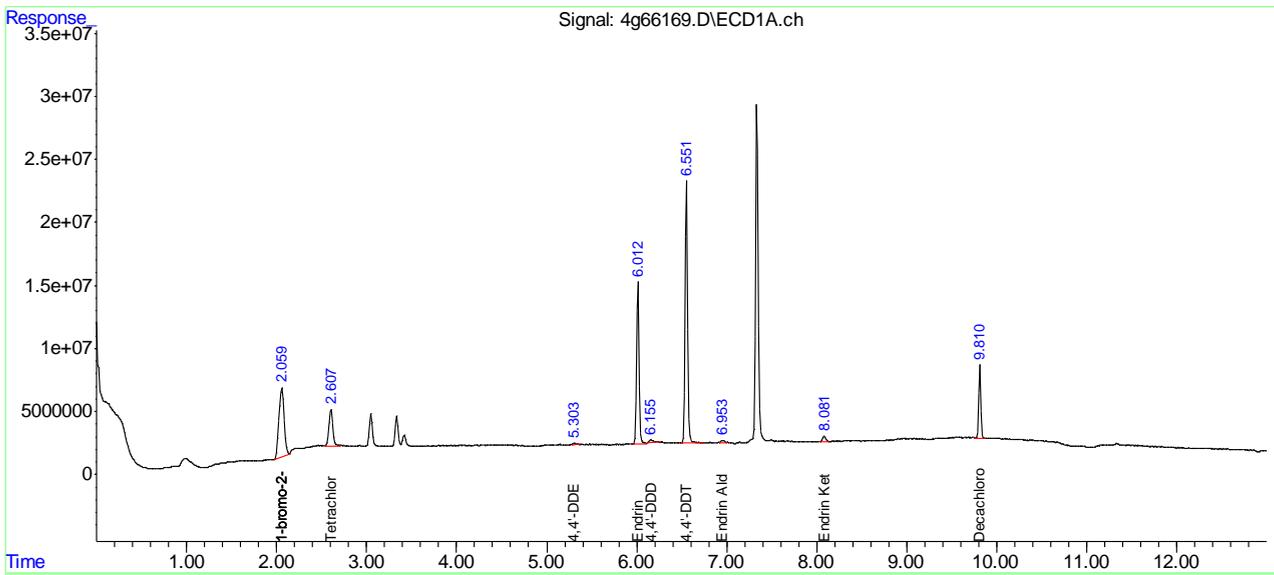
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:54:13 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integration Approval Summary

Sample Number: G4G1741-DDT Method: SW846 8081B
Lab FileID: 4G66169.D Analyst approved: 03/19/16 12:57 Joseph Ravino
Injection Time: 03/18/16 17:45 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.30	Poor instrument integration
4,4'-DDD	72-54-8	1	6.15	Poor instrument integration
4,4'-DDT	50-29-3	1	6.55	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.95	Poor instrument integration
4,4'-DDD	72-54-8	2	7.63	Poor instrument integration
Endrin ketone	53494-70-5	1	8.08	Poor instrument integration

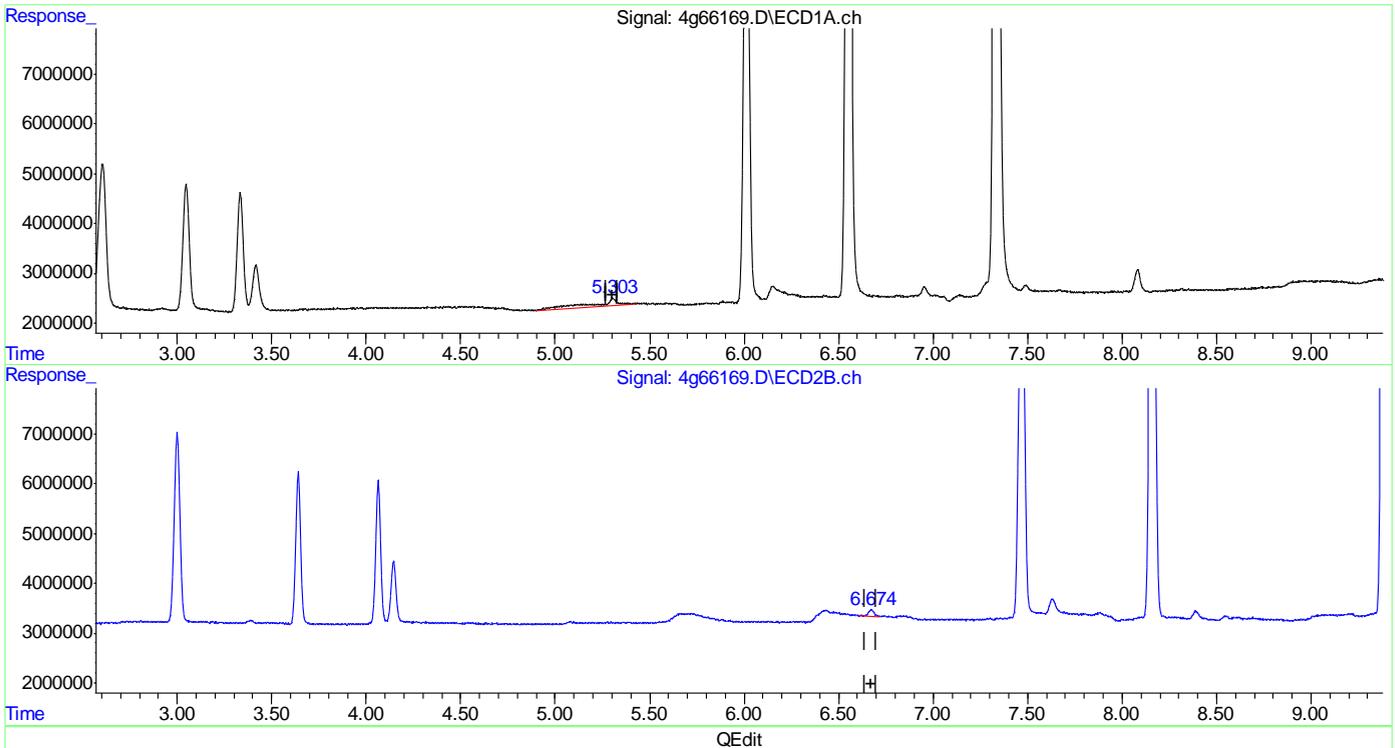
13.5.1.1
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(13) 4,4'-DDE (B)
 5.305min 3.961 PPB
 response 15321496

(13) 4,4'-DDE #2 (B)
 6.674min 0.664 PPB
 response 2876000

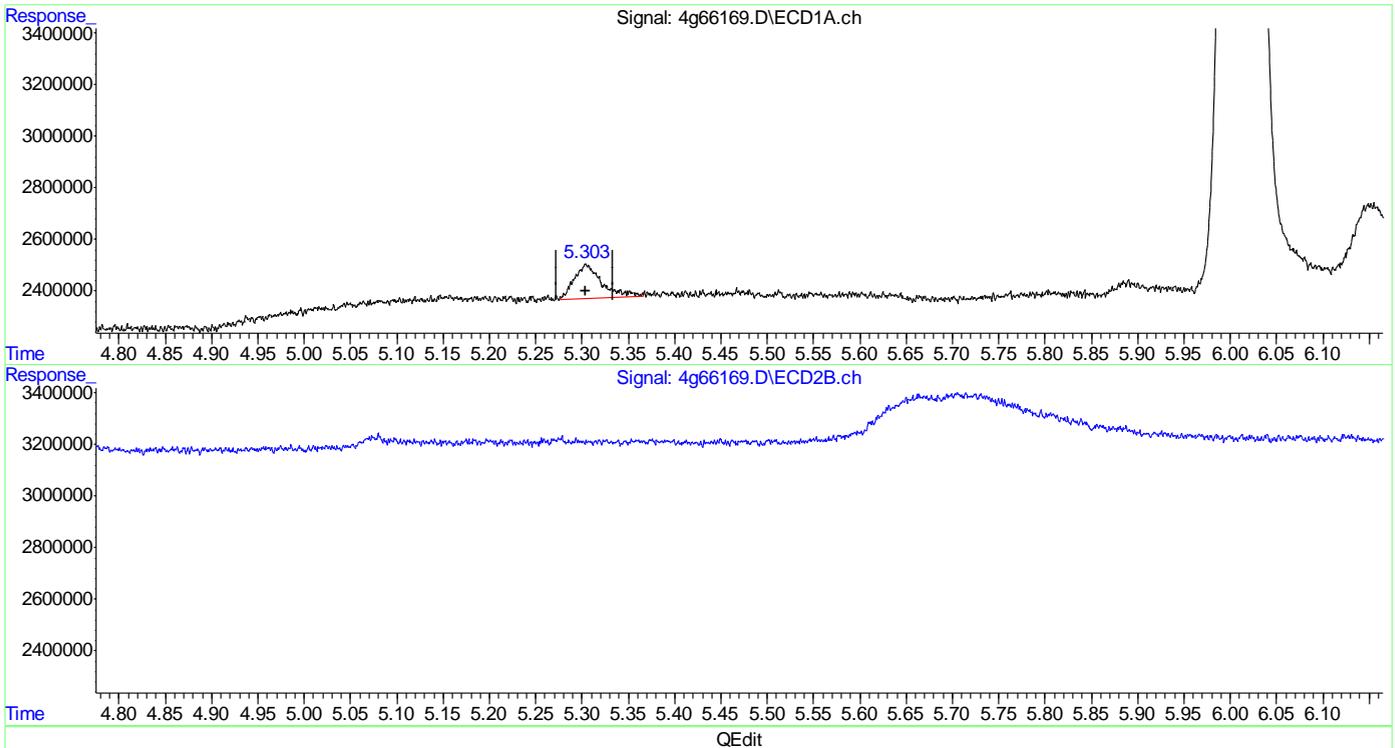
13.5.12
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.5.13
13

(13) 4,4'-DDE (B)
 5.303min 0.681 PPB m
 response 2634401

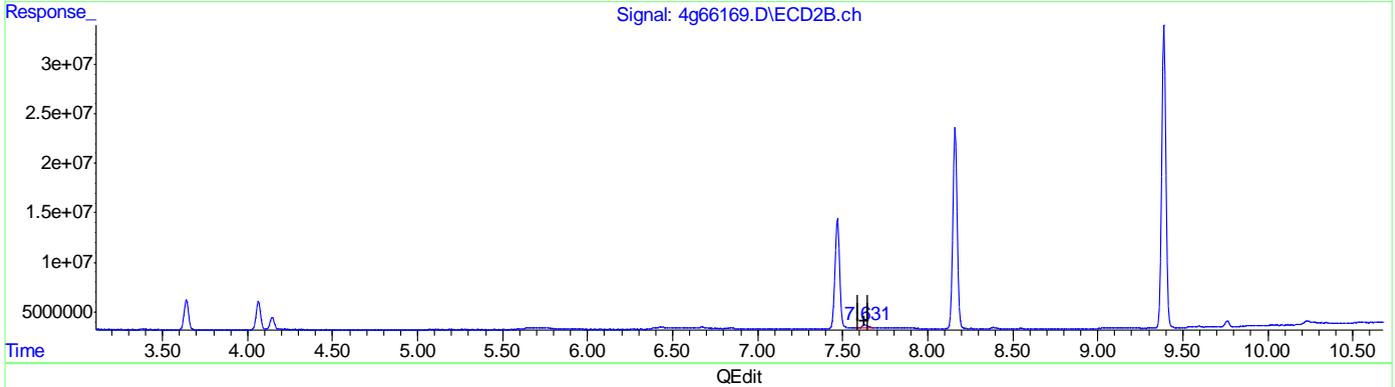
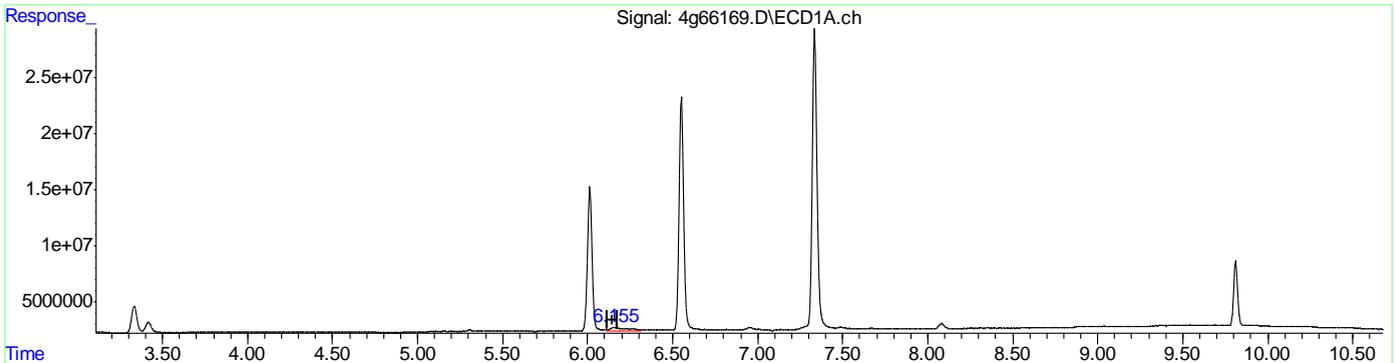
(13) 4,4'-DDE #2 (B)
 6.674min 0.664 PPB
 response 2876000

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 6.152min 6.025 PPB
 response 20211392

(16) 4,4'-DDD #2 (A)
 7.629min 2.248 PPB
 response 8704442

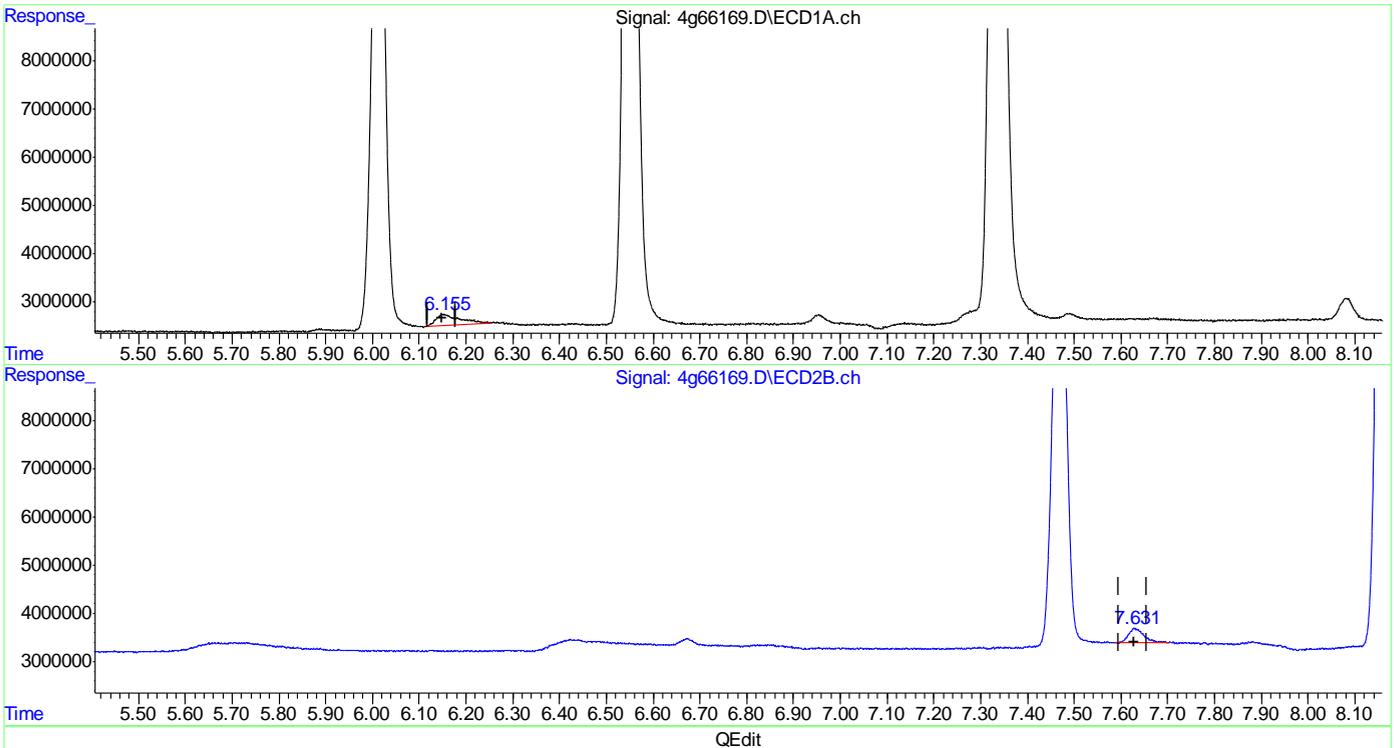
13.5.14
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 6.155min 2.500 PPB m
 response 8385130

(16) 4,4'-DDD #2 (A)
 7.631min 1.822 PPB m
 response 7051784

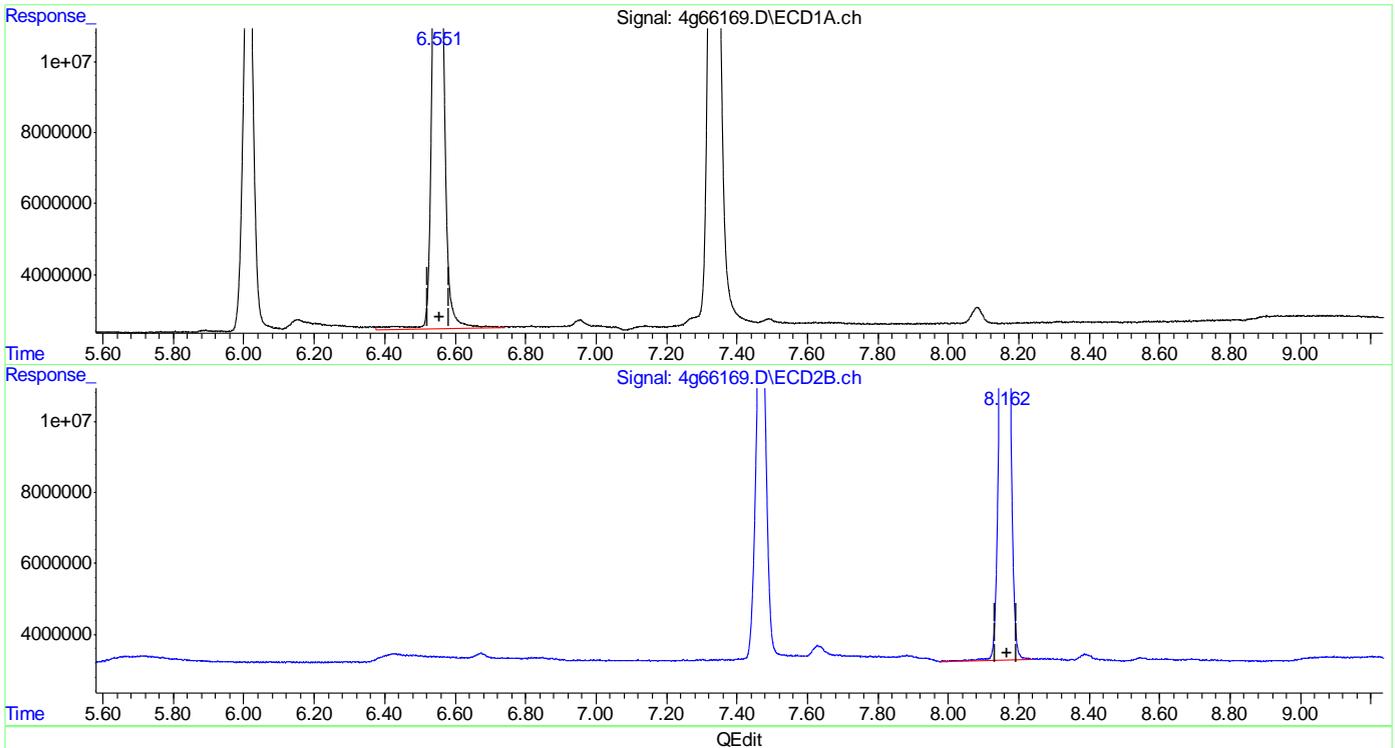
13.5.15
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDT (MA)
 6.551min 114.023 PPB
 response 396236601

(18) 4,4'-DDT #2 (MA)
 8.161min 106.069 PPB
 response 362278732

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:53:35 2016 RPT1

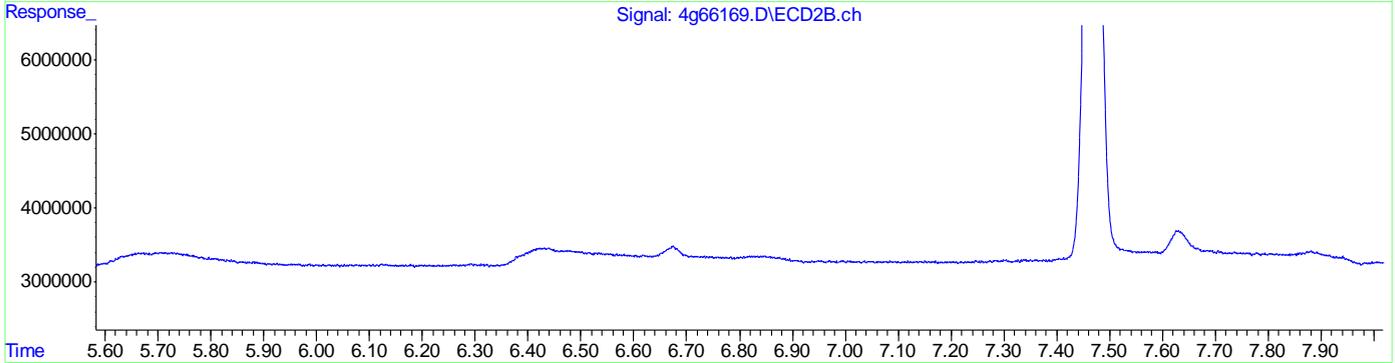
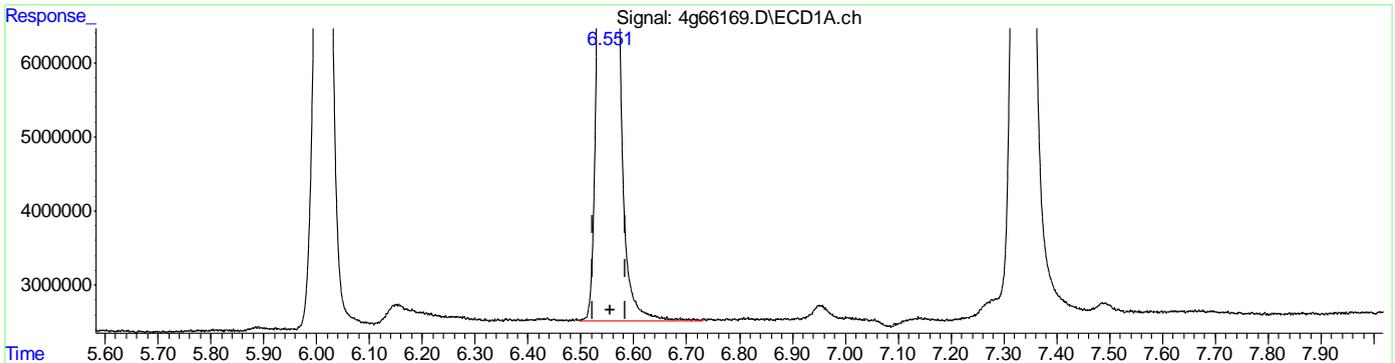
13.5.16
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDT (MA)
 6.551min 112.201 PPB m
 response 388085703

(18) 4,4'-DDT #2 (MA)
 8.161min 106.069 PPB
 response 362278732

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:53:43 2016 RPT1

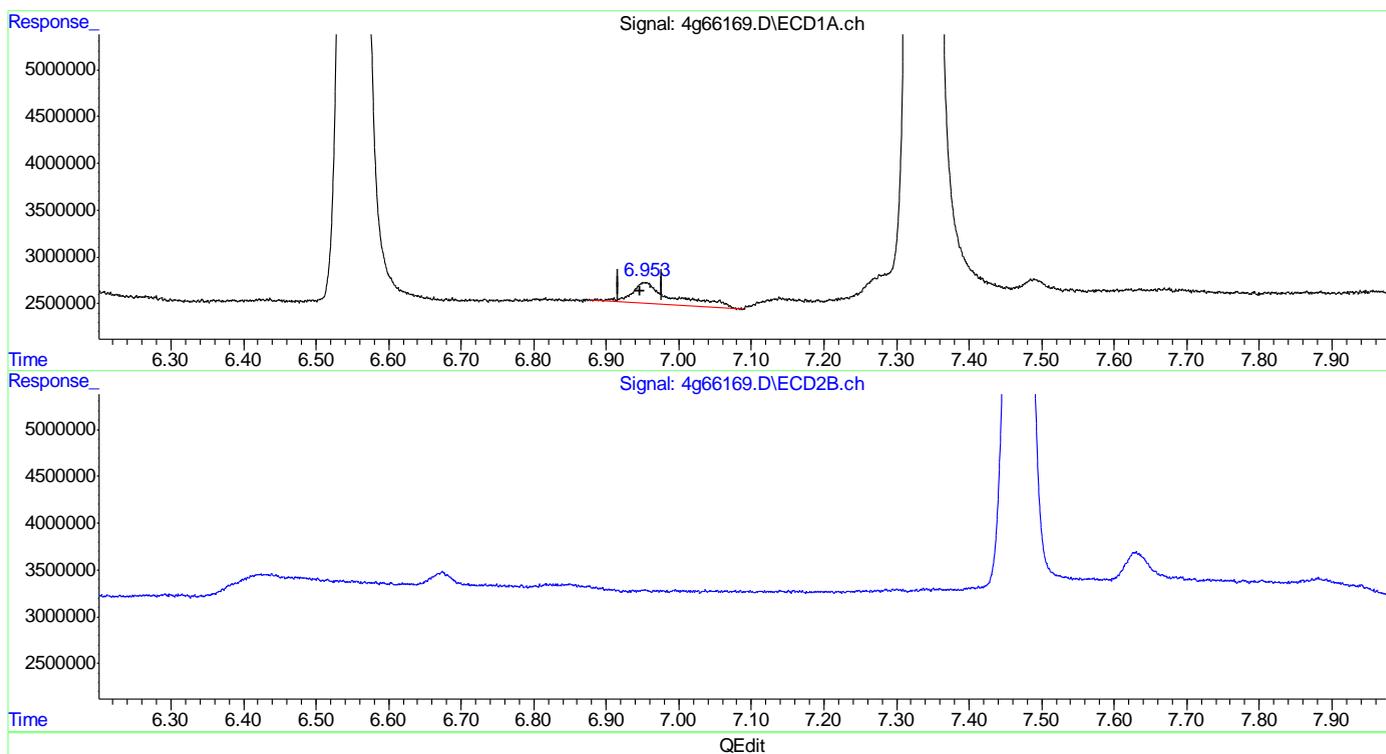
13.5.17
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(19) Endrin Aldehyde (B)

6.953min 2.685 PPB
 response 9084248

(19) Endrin Aldehyde #2 (B)

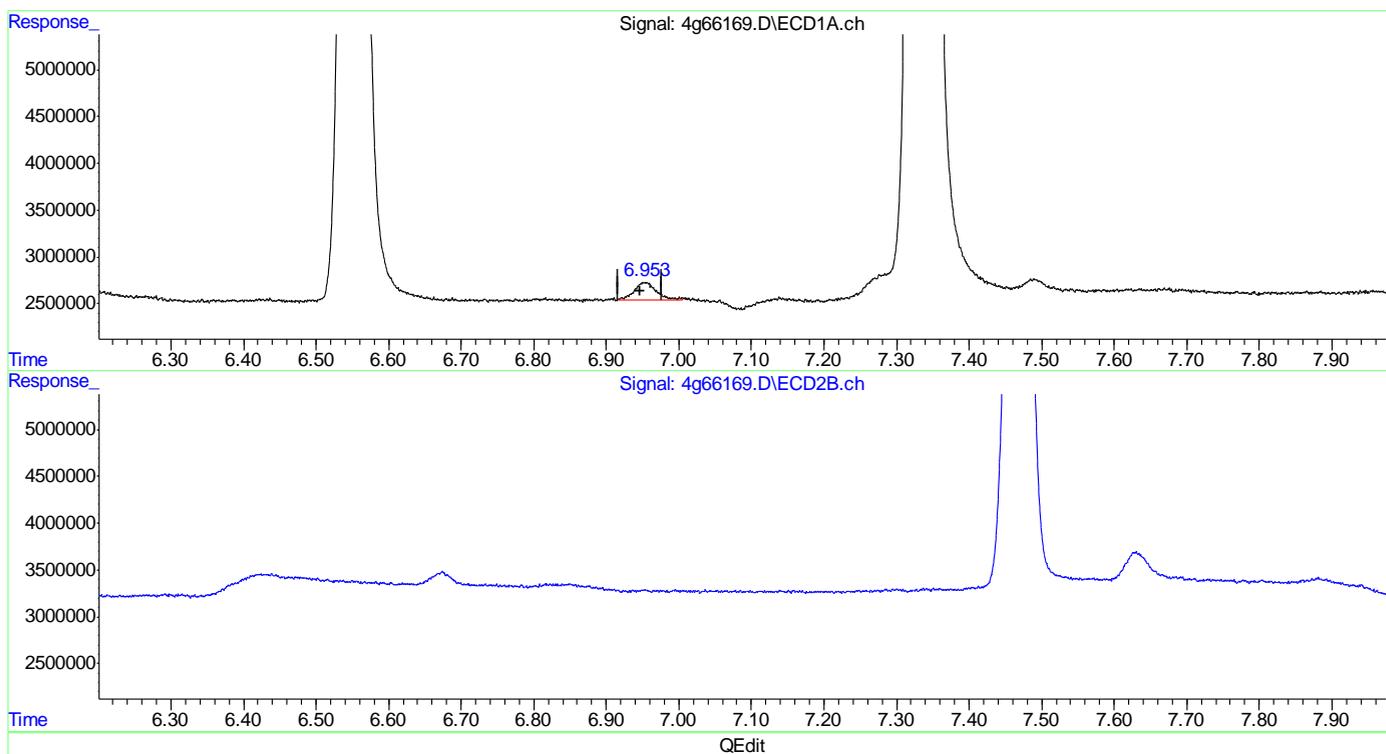
8.387min 0.939 PPB
 response 3242234

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(19) Endrin Aldehyde (B)

6.953min 1.240 PPB m
 response 4194694

(19) Endrin Aldehyde #2 (B)

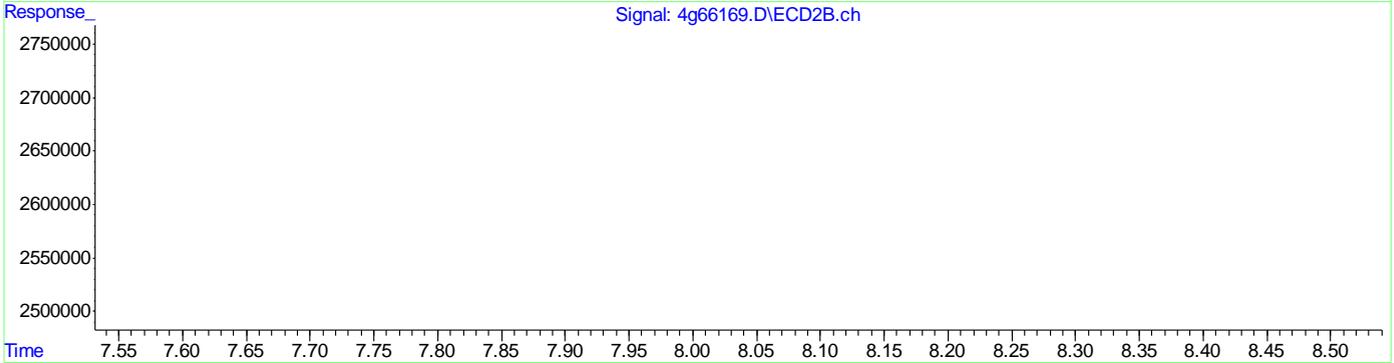
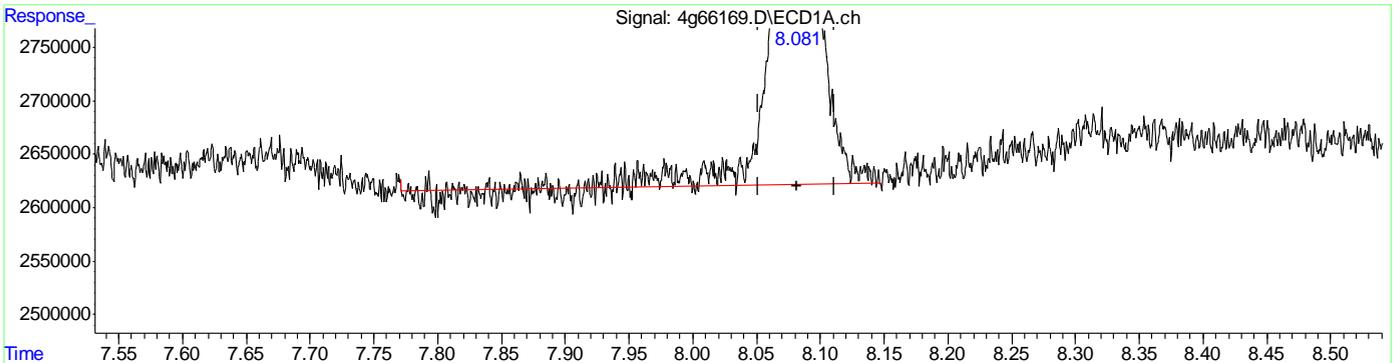
8.387min 0.939 PPB
 response 3242234

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(23) Endrin Ketone (B)
 8.082min 2.617 PPB
 response 10272870

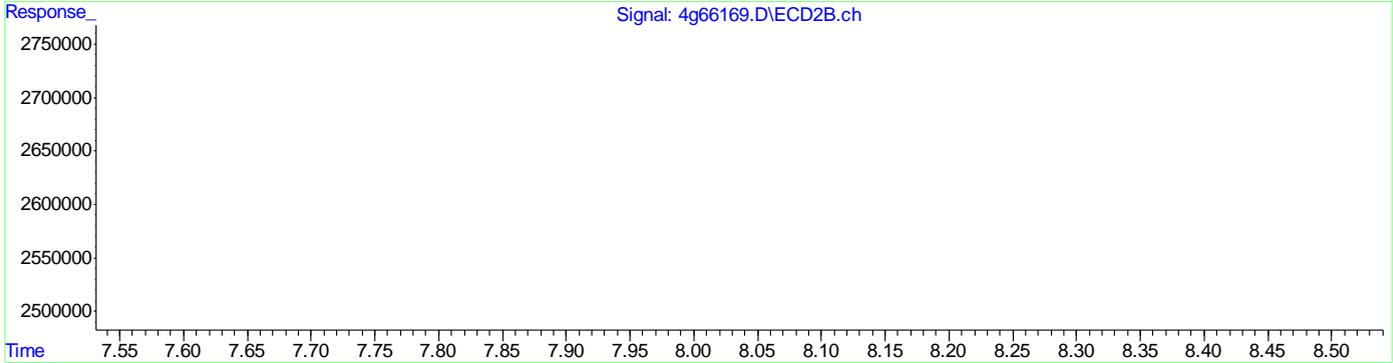
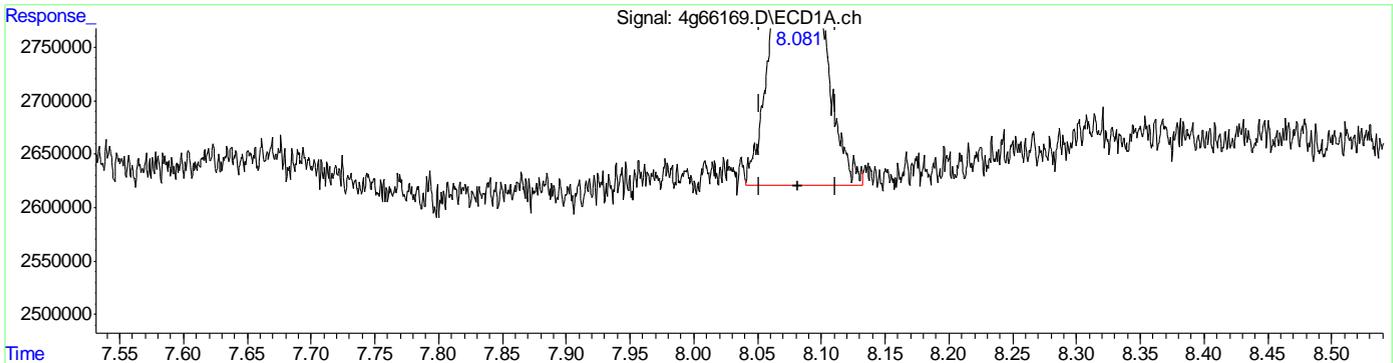
(23) Endrin Ketone #2 (B)
 9.761min 2.497 PPB
 response 10057782

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66169.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 5:45 pm
 Operator : brittanp
 Sample : ddt
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:52:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 12:50:04 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(23) Endrin Ketone (B)
 8.081min 2.504 PPB m
 response 9829510

(23) Endrin Ketone #2 (B)
 9.761min 2.497 PPB
 response 10057782

13.5.1.11
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:12:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2...	2.049	2.213	225.0E6	237.2E6	50.000	50.000
25) I 1-bromo-2...	2.049	2.213	225.0E6	237.2E6	50.000	50.000
31) I 1-bromo-2...	2.049	2.213	225.0E6	237.2E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.592	2.993	93929136	91938248	21.351m	20.388
Spiked Amount	40.000	Range	30 - 150	Recovery	=	53.38% 50.97%
24) SA Decachlor...	9.809	11.217	108.7E6	77582913	24.122	23.264
Spiked Amount	40.000		Recovery	=	60.31%	58.16%
Target Compounds						
13) B 4,4'-DDE	5.303	6.670	903254	2083500	0.228m	0.451m#
15) MA Endrin	6.003	7.466	258.8E6	241.6E6	61.233	55.866
16) A 4,4'-DDD	6.163f	7.633	6344809	6714785	1.846m	1.626m
18) MA 4,4'-DDT	6.546	8.160	457.3E6	435.1E6	124.943	117.140
19) B Endrin Al...	6.949	8.404	2402385	24769543	0.693m	6.726 #
23) B Endrin Ke...	8.078	9.760	10232675	11871944	2.544	2.763

SemiQuant Compounds - Not Calibrated on this Instrument

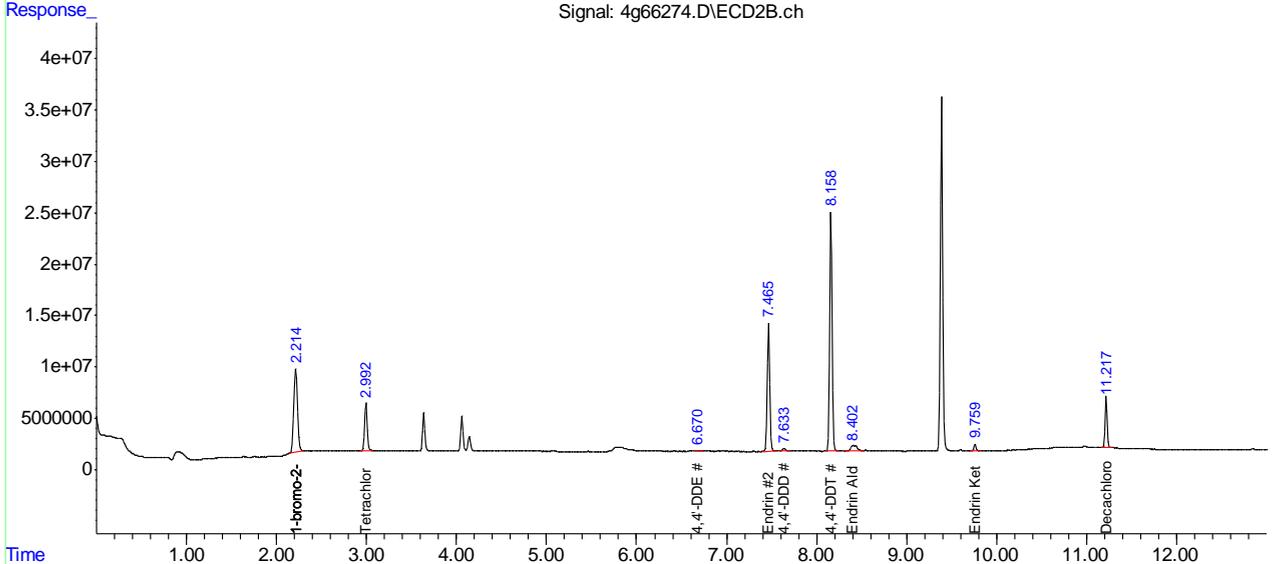
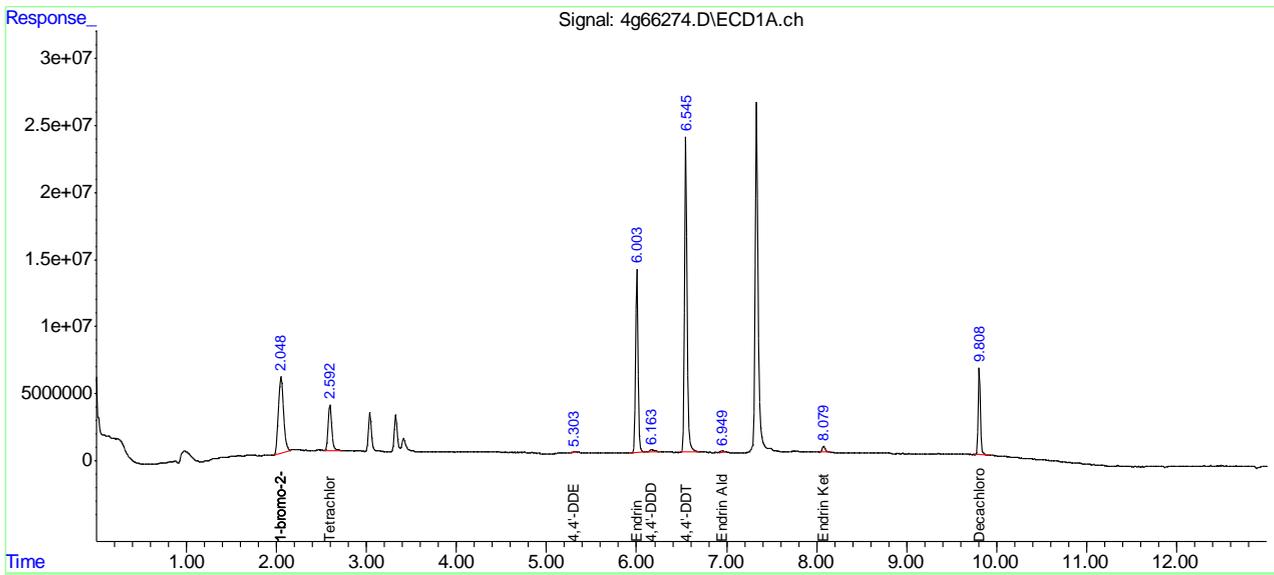
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:12:47 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.5.2 13

Manual Integration Approval Summary

Sample Number: G4G1744-DDT Method: SW846 8081B
Lab FileID: 4G66274.D Analyst approved: 03/21/16 16:22 Brittany Piercy
Injection Time: 03/20/16 09:37 Supervisor approved: 03/22/16 08:37 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.59	Poor instrument integration
4,4'-DDE	72-55-9	1	5.30	Poor instrument integration
4,4'-DDD	72-54-8	1	6.16	Poor instrument integration
4,4'-DDE	72-55-9	2	6.67	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.95	Poor instrument integration
4,4'-DDD	72-54-8	2	7.63	Poor instrument integration

13.5.2.1

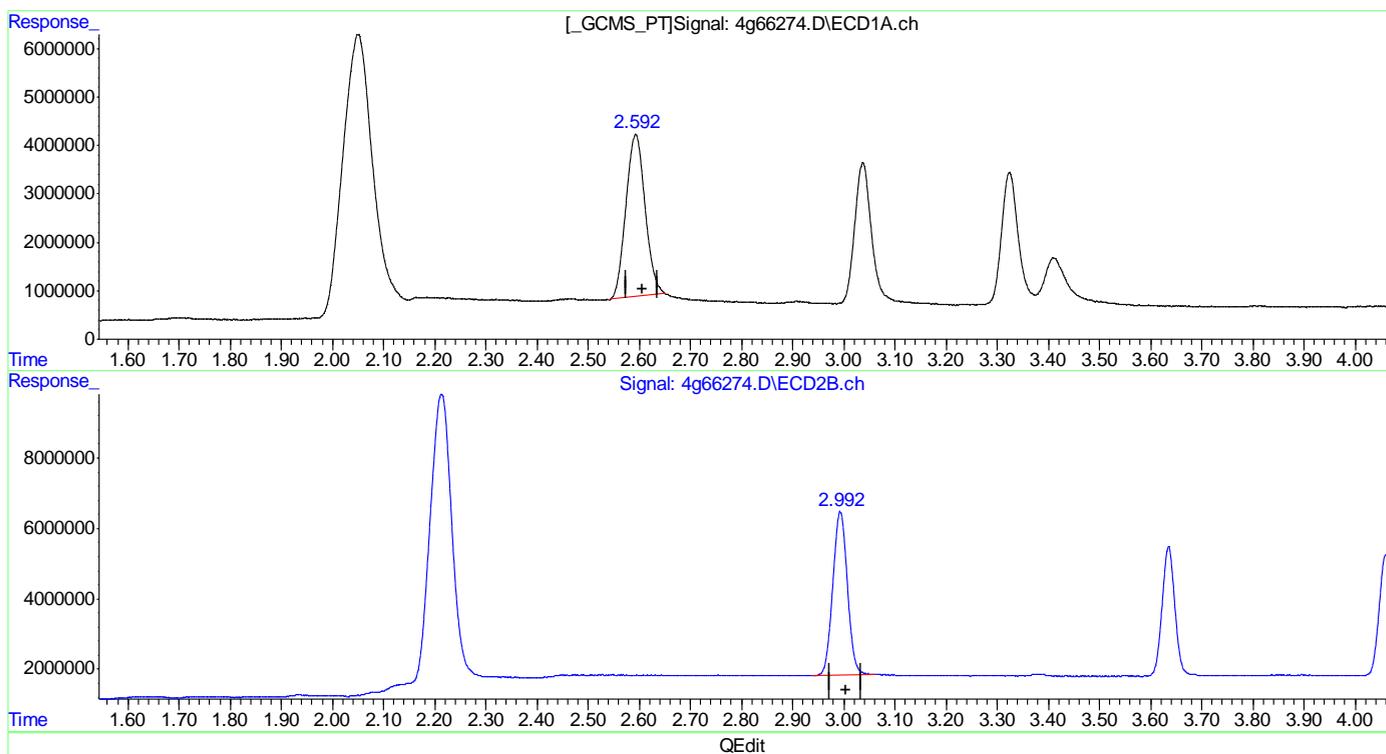
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)

2.593min 19.567 PPB

response 86083491

(2) Tetrachloro-m-xylene #2 (SAB)

2.993min 20.388 PPB

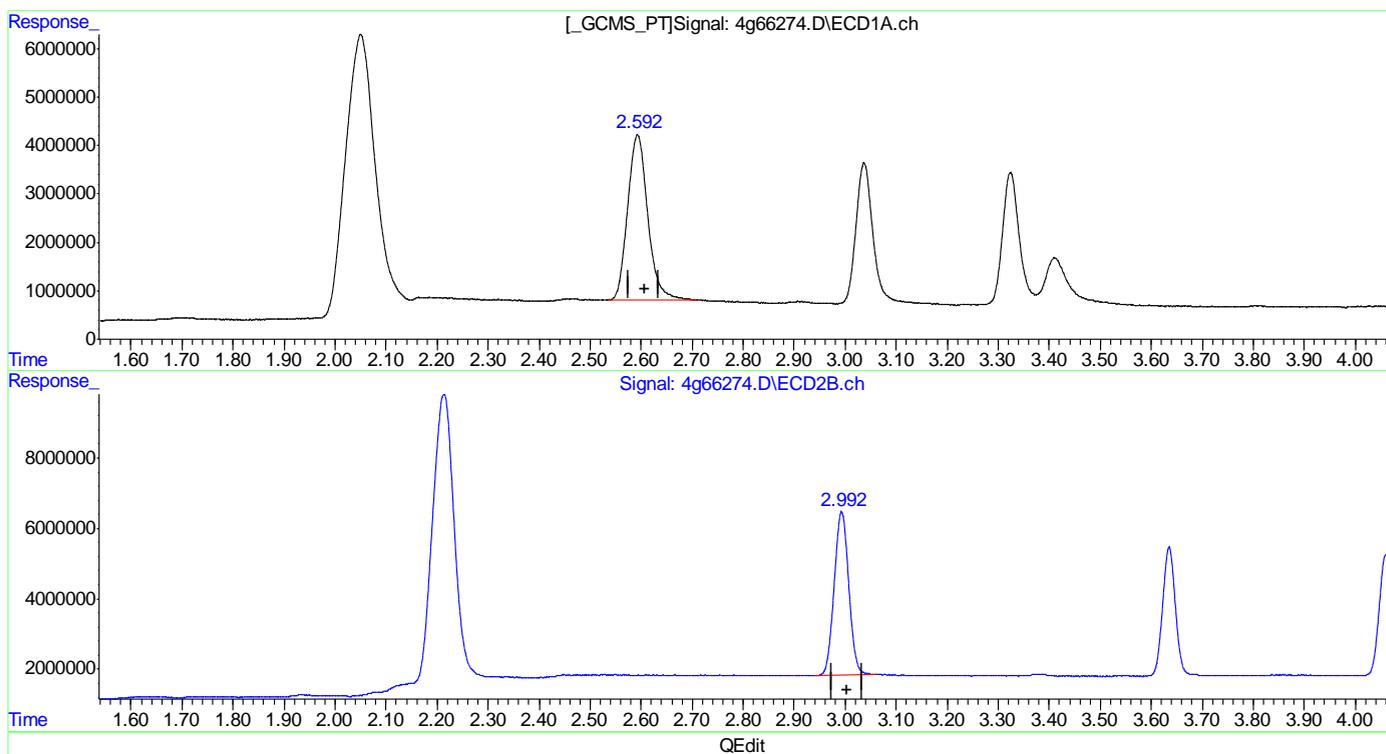
response 91938248

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(2) Tetrachloro-m-xylene (SAB)

2.592min 21.351 PPB m

response 93929136

(2) Tetrachloro-m-xylene #2 (SAB)

2.993min 20.388 PPB

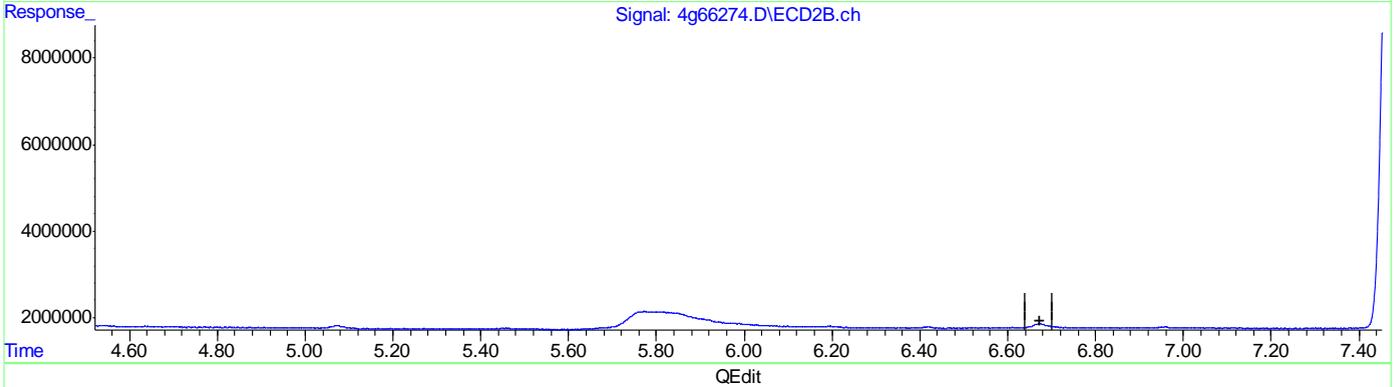
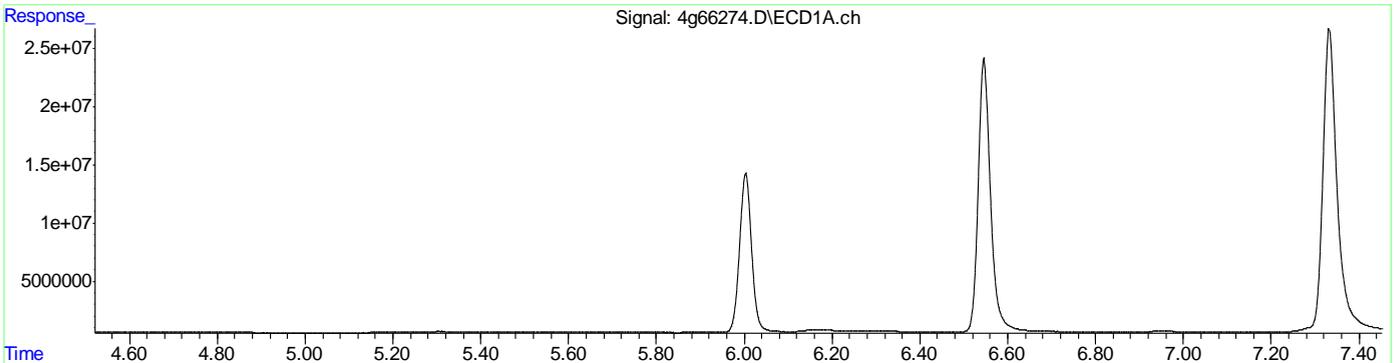
response 91938248

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(13) 4,4'-DDE (B)
 0.000min 0.000 PPB
 response 0

(13) 4,4'-DDE #2 (B)
 0.000min 0.000 PPB
 response 0

(+) = Expected Retention Time

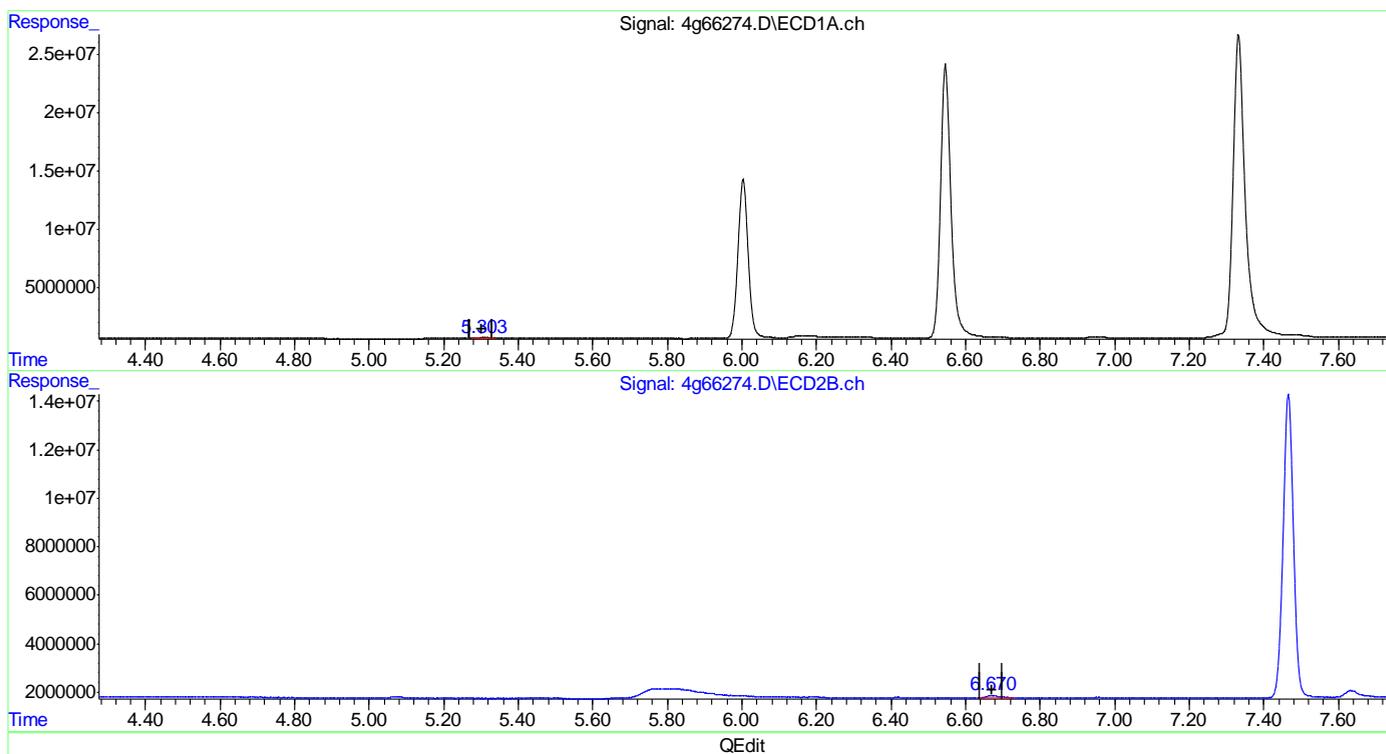
13.5.24
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(13) 4,4'-DDE (B)
 5.303min 0.228 PPB m
 response 903254

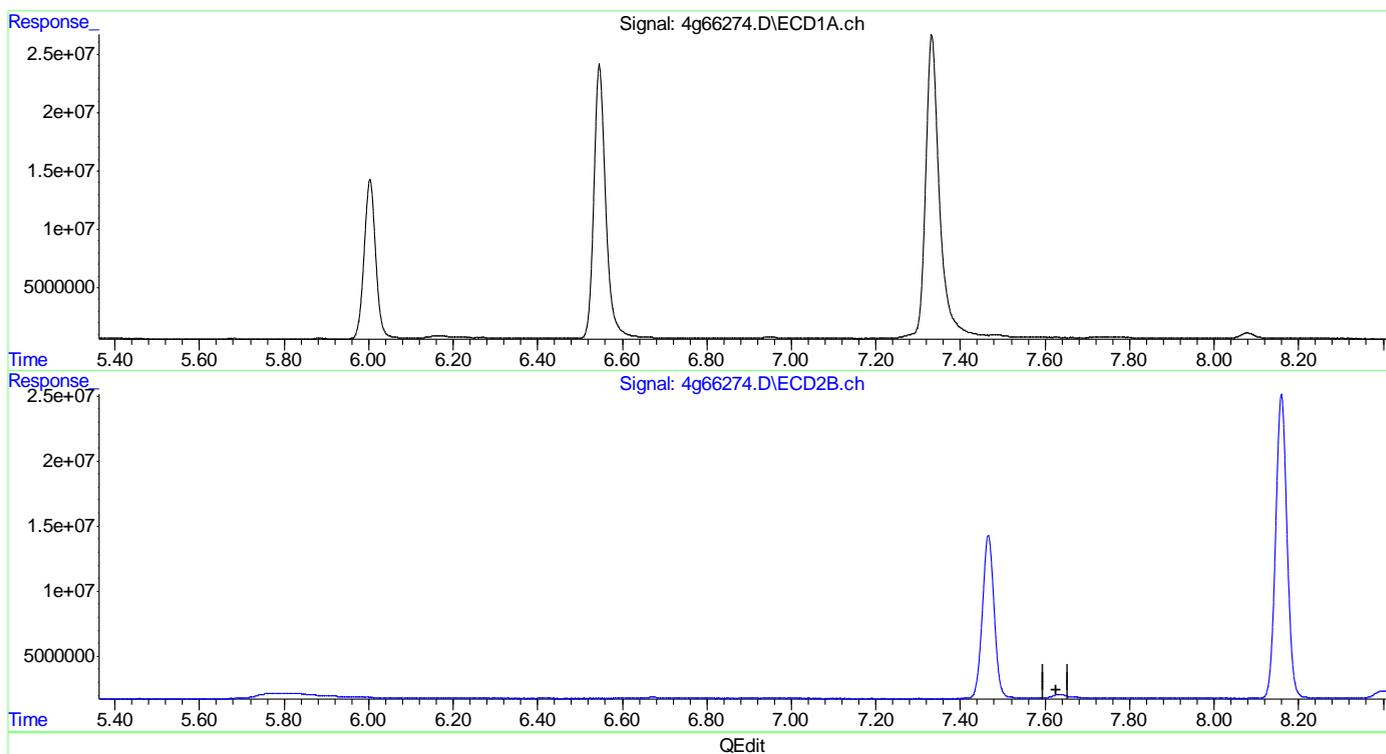
(13) 4,4'-DDE #2 (B)
 6.670min 0.451 PPB m
 response 2083500

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 0.000min 0.000 PPB
 response 0

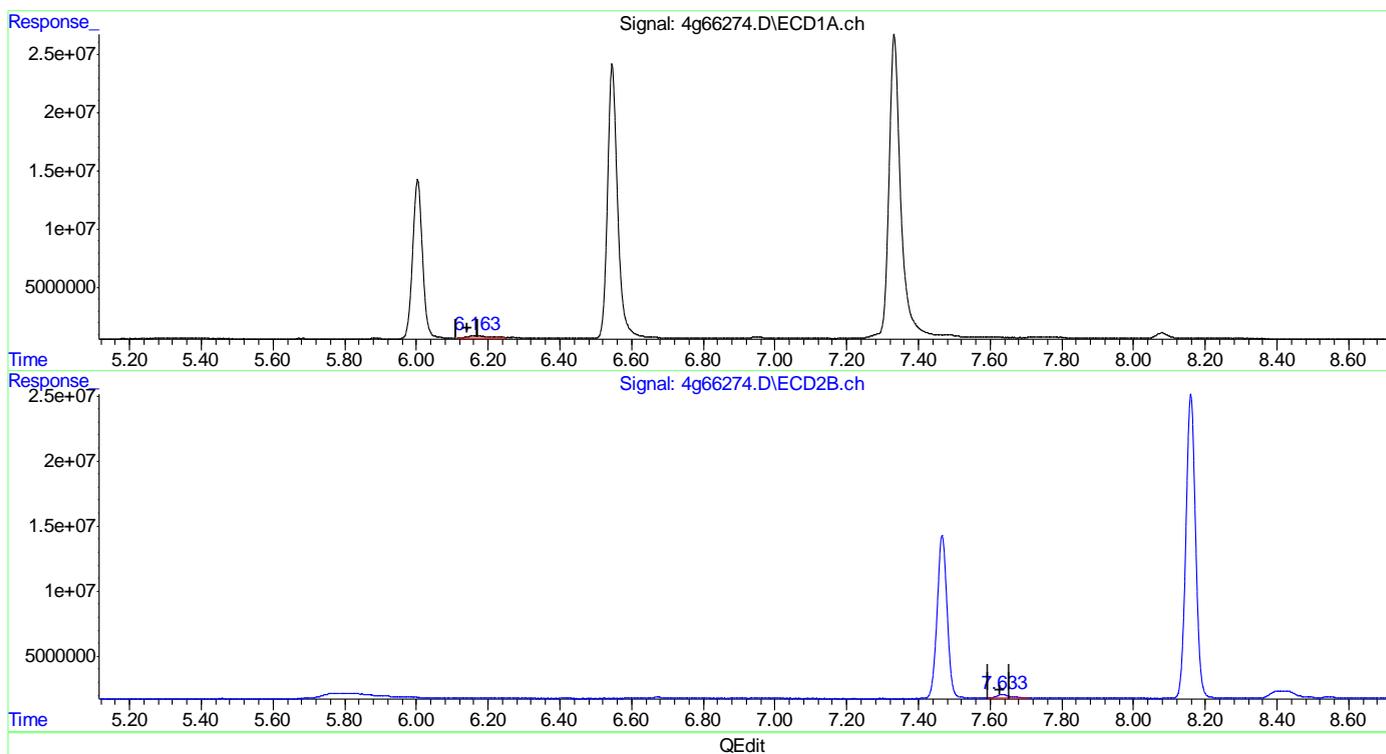
(16) 4,4'-DDD #2 (A)
 0.000min 0.000 PPB
 response 0

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 6.163min 1.846 PPB m
 response 6344809

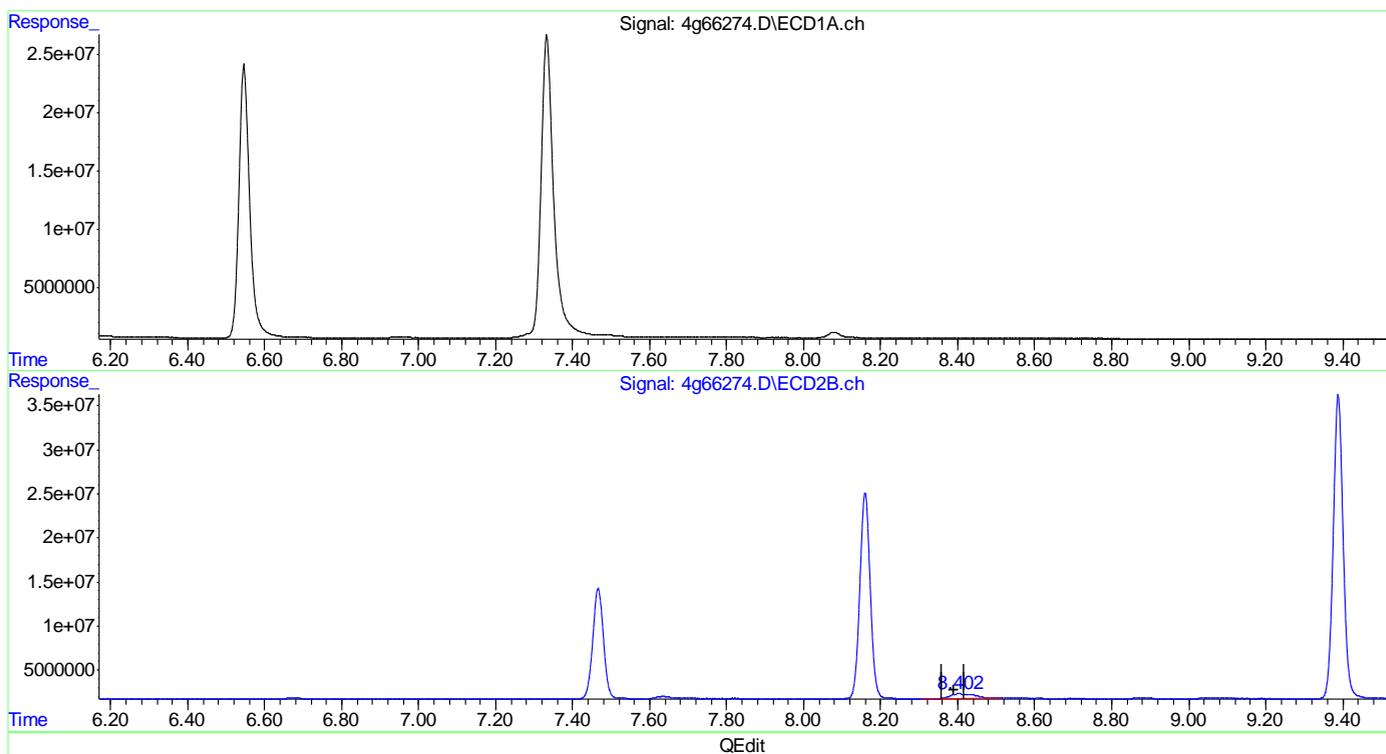
(16) 4,4'-DDD #2 (A)
 7.633min 1.626 PPB m
 response 6714785

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(19) Endrin Aldehyde (B)

0.000min 0.000 PPB
 response 0

(19) Endrin Aldehyde #2 (B)

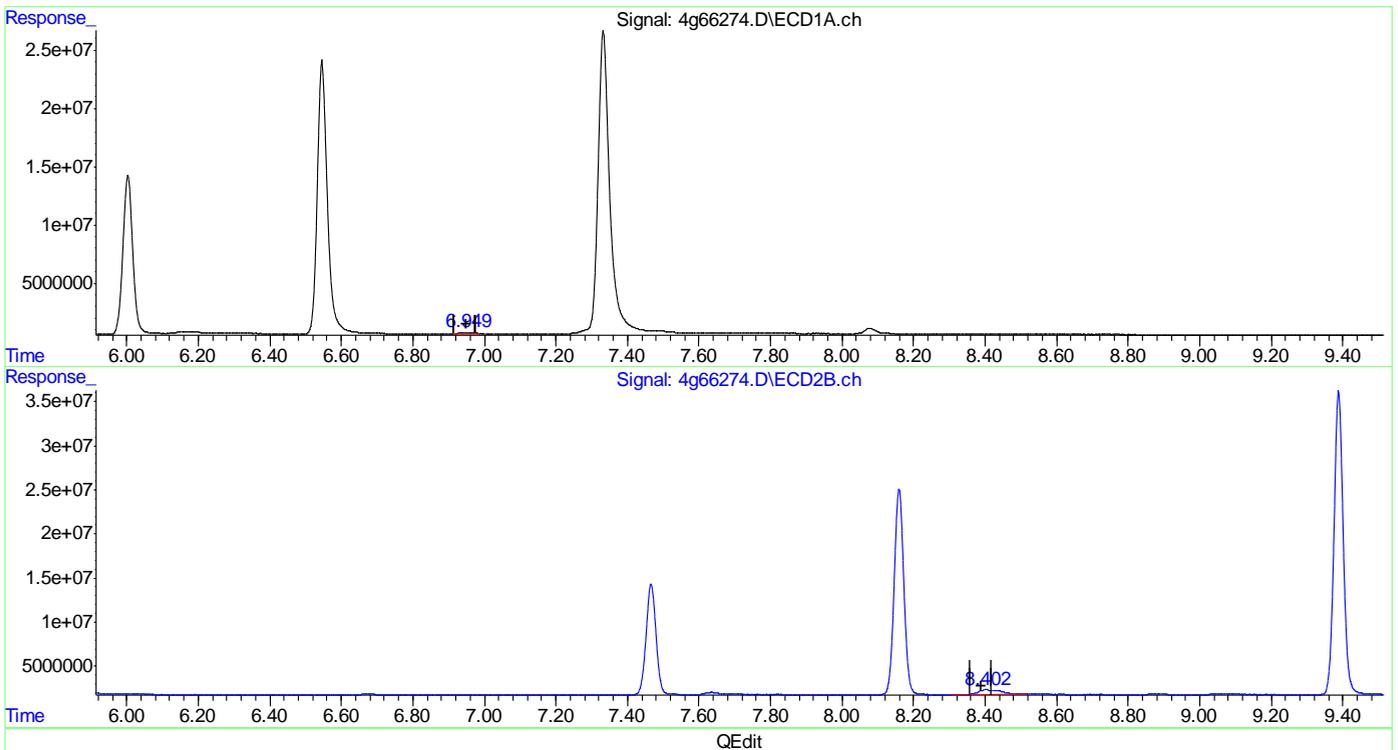
8.404min 6.726 PPB
 response 24769543

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66274.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:37 am
 Operator : brittanp
 Sample : ddt
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 16:10:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(19) Endrin Aldehyde (B)

6.949min 0.693 PPB m
 response 2402385

(19) Endrin Aldehyde #2 (B)

8.404min 6.726 PPB
 response 24769543

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:57:49 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.061	2.229	232.2E6	223.2E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.608	3.007	4748359	4577207	1.115	1.048
Spiked Amount	40.000	Range	30 - 150	Recovery	=	2.79%#
24) SA Decachlor...	9.812	11.220	5280260	3259561	1.193	1.034m
Spiked Amount	40.000		Recovery	=	2.98%	2.59%
Target Compounds						
3) A alpha-BHC	3.046	3.644	5588085	5396001	0.904m	0.919
4) MA gamma-BHC	3.333	4.067	5289537	4743223	0.976m	0.901
5) MA Heptachlor	3.603	4.642	5369256	5151033	1.024	0.979
6) B beta-BHC	3.420	4.145	2537662	2042101	0.940m	0.861m
7) B delta-BHC	3.817	4.545	5121059	4634488	0.983	0.977
8) MB Aldrin	4.151	5.097	5339804	5507505	0.974	1.067
9) B Heptachlo...	4.850	5.913	5150241	4393914	1.049	0.931
10) B gamma-Chl...	5.018	6.199	5129896	4928230	1.065	1.029
11) B alpha-Chl...	5.188	6.422	5268897	4518844	1.103	0.966
12) A Endosulfan I	5.365	6.527	4816245	5217522	0.909	1.113
13) B 4,4'-DDE	5.304	6.672	4303223	4404148	1.074	0.977
14) MA Dieldrin	5.684	6.962	5263248	4104278	1.064	0.869
15) MA Endrin	6.011	7.470	4381290	3922291	0.957	0.926
16) A 4,4'-DDD	6.149	7.627	3302283	4289539	0.883m	1.127 #
17) B Endosulfa...	6.335	7.820	4178832	4088503	0.946	0.990
18) MA 4,4'-DDT	6.555	8.165	1789273	1777297	1.902m	1.395 #
19) B Endrin Al...	6.947	8.393	3365737	4202759	0.963m	1.315 #
20) B Endosulfa...	7.628	8.864	3160728	3524180	0.877	0.968
21) A Methoxychlor	7.355	9.390	1421777	1344536	0.978m	0.858m
22) Mirex	7.523	9.710	3797006	3197641	1.060	0.975
23) B Endrin Ke...	8.082	9.762	3903291	3382121	0.942m	0.831

13.6.1
 13

SemiQuant Compounds - Not Calibrated on this Instrument

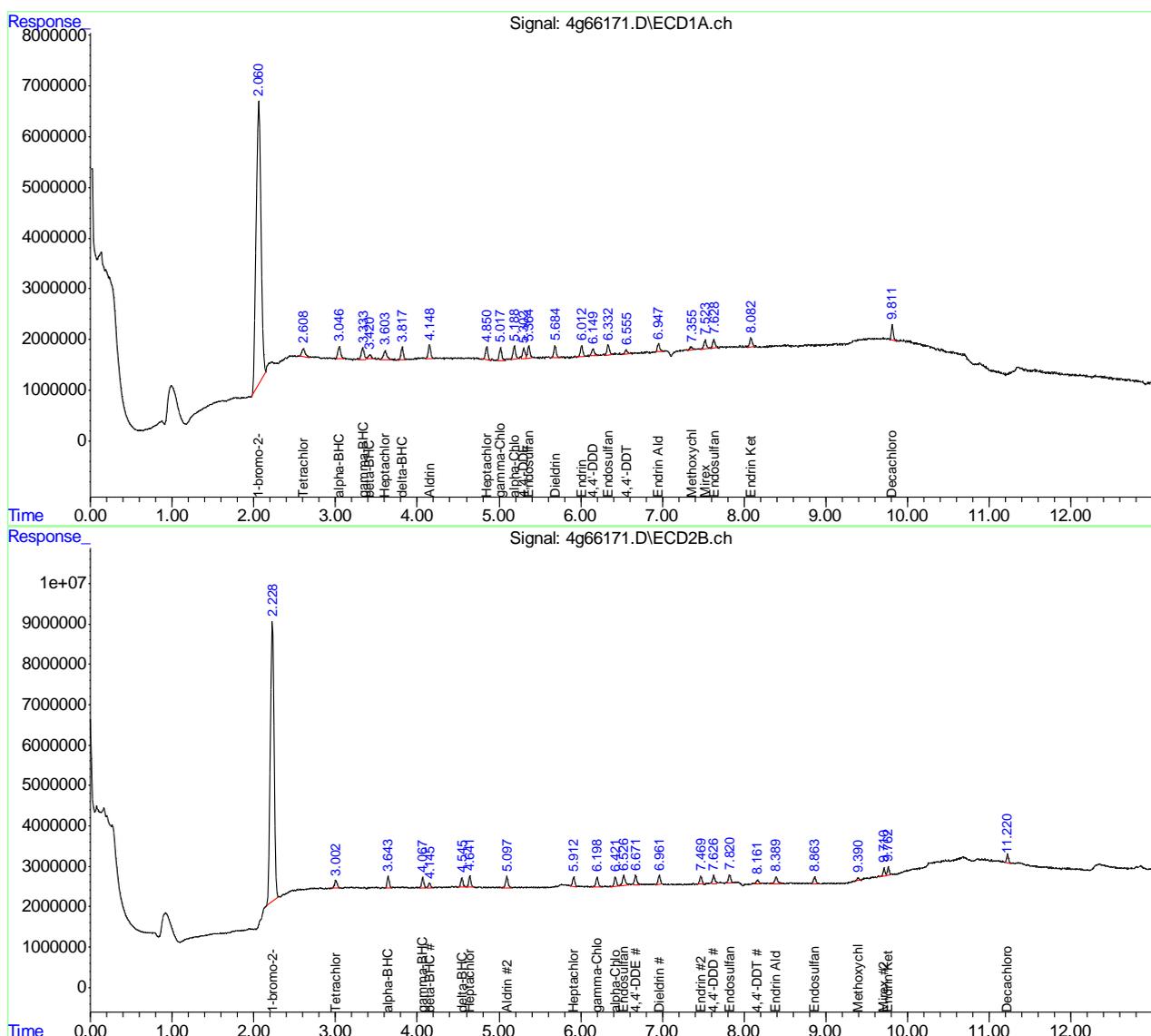
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:57:49 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.1
13

Manual Integration Approval Summary

Sample Number: G4G1741-IC1741 Method: SW846 8081B
Lab FileID: 4G66171.D Analyst approved: 03/19/16 12:57 Joseph Ravino
Injection Time: 03/18/16 18:14 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
alpha-BHC	319-84-6	1	3.05	Poor instrument integration
gamma-BHC (Lindane)	58-89-9	1	3.33	Poor instrument integration
beta-BHC	319-85-7	1	3.42	Poor instrument integration
beta-BHC	319-85-7	2	4.15	Poor instrument integration
4,4'-DDD	72-54-8	1	6.15	Poor instrument integration
4,4'-DDT	50-29-3	1	6.55	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.95	Poor instrument integration
Methoxychlor	72-43-5	1	7.36	Poor instrument integration
Endrin ketone	53494-70-5	1	8.08	Poor instrument integration
Methoxychlor	72-43-5	2	9.39	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	11.22	Poor instrument integration

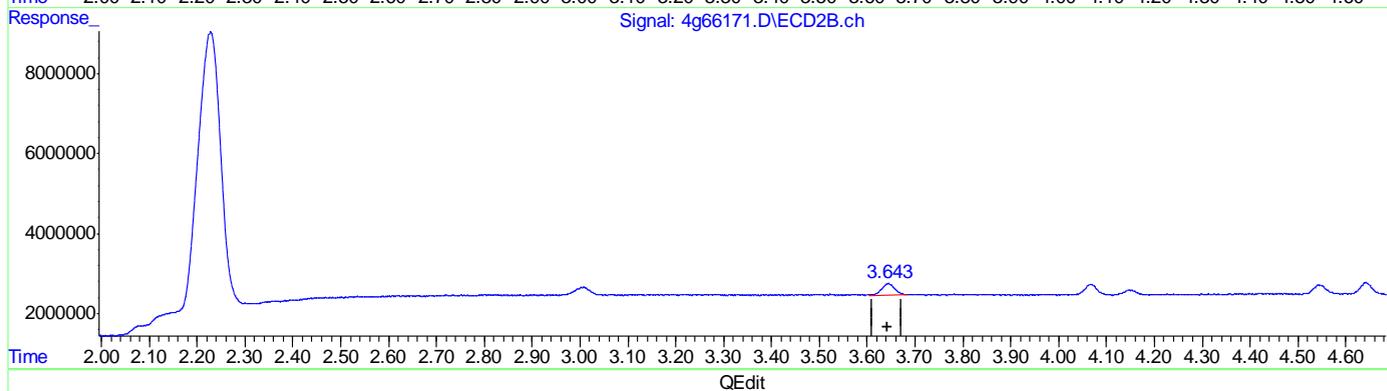
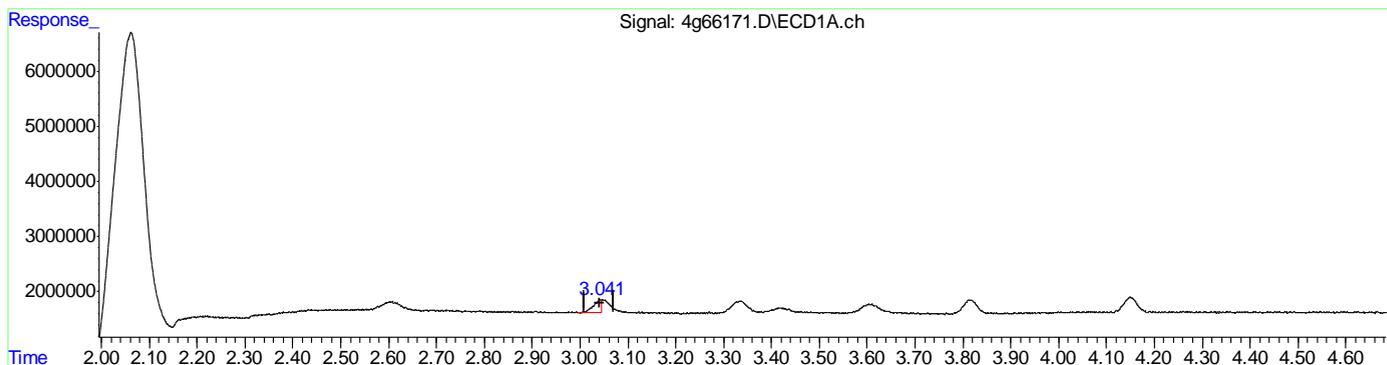
13.6.1.1
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(3) alpha-BHC (A)
 3.042min 0.394 PPB
 response 2433872

(3) alpha-BHC #2 (A)
 3.644min 0.919 PPB
 response 5396001

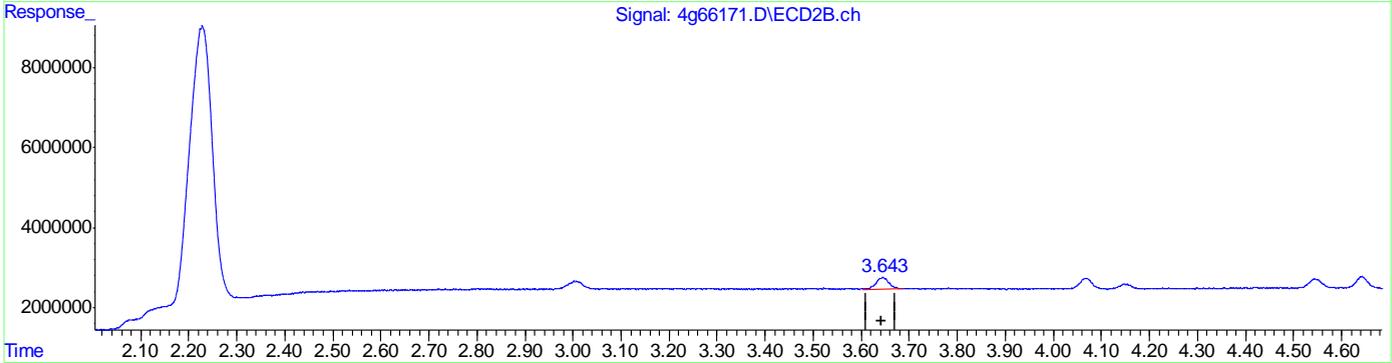
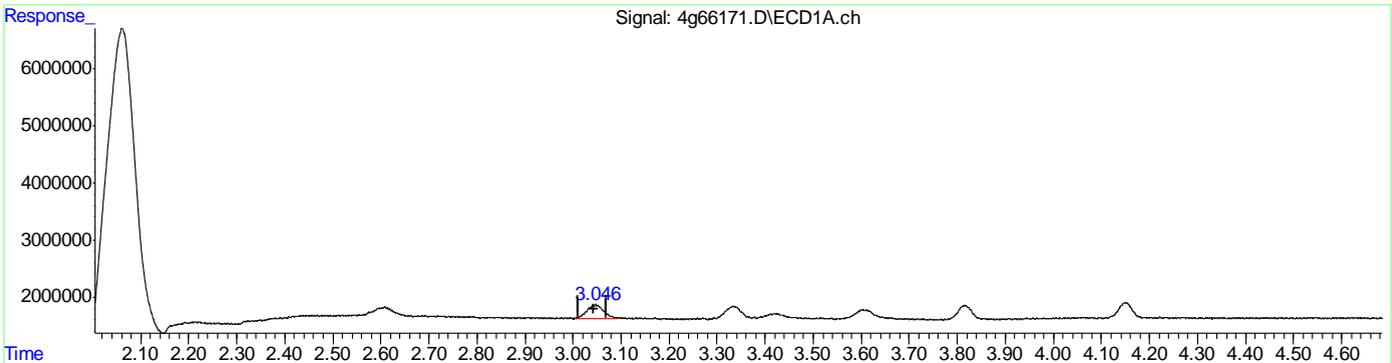
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:22:00 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(3) alpha-BHC (A)
 3.046min 0.904 PPB m
 response 5588085

(3) alpha-BHC #2 (A)
 3.644min 0.919 PPB
 response 5396001

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:22:12 2016 RPT1

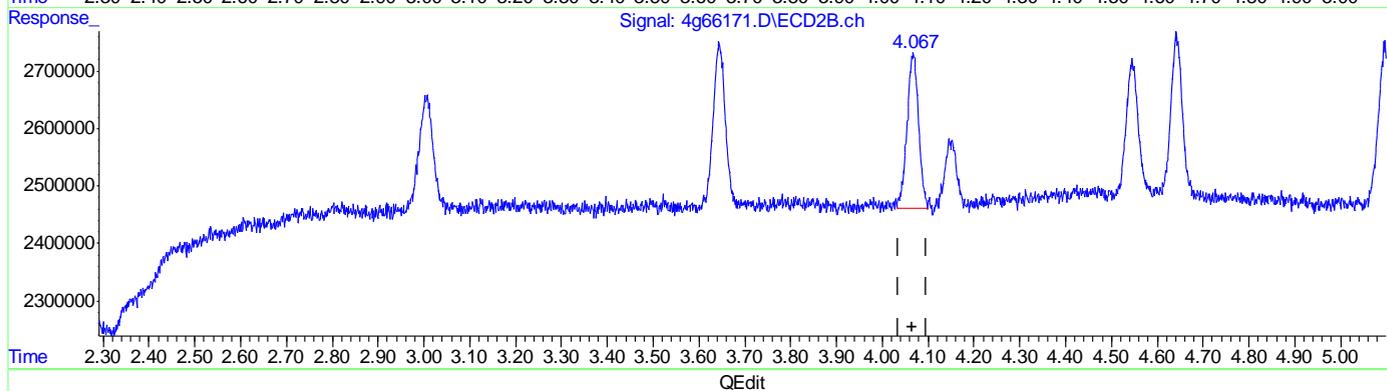
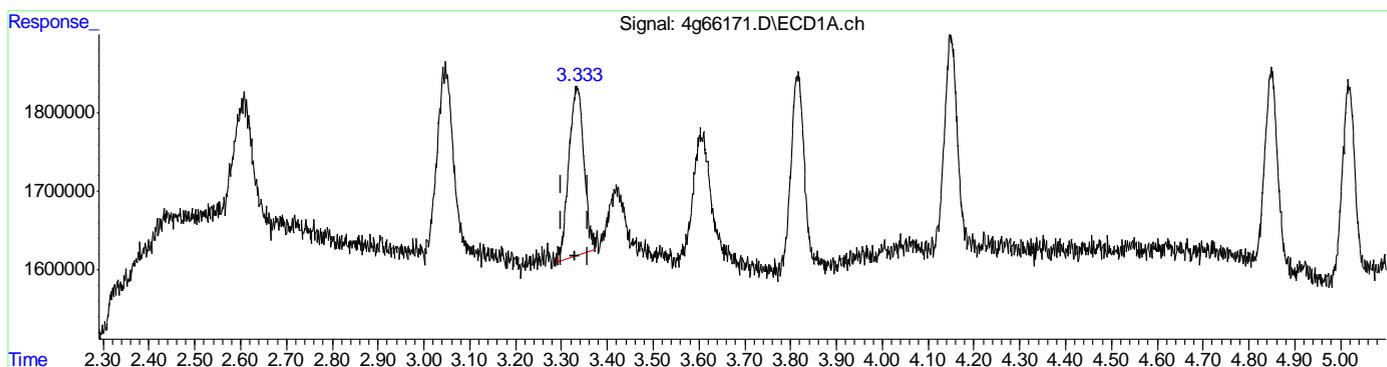
13.6.13
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(4) gamma-BHC (MA)
 3.335min 0.899 PPB
 response 4872980

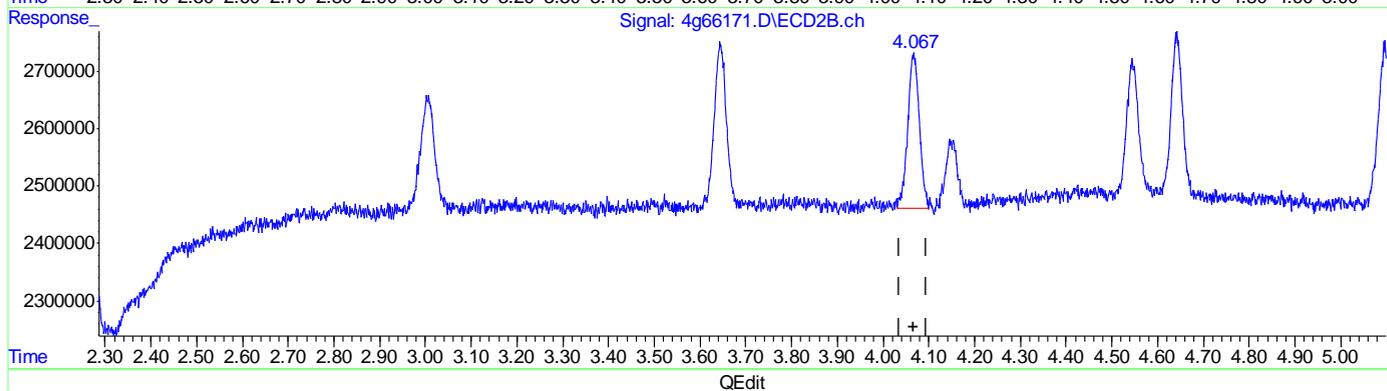
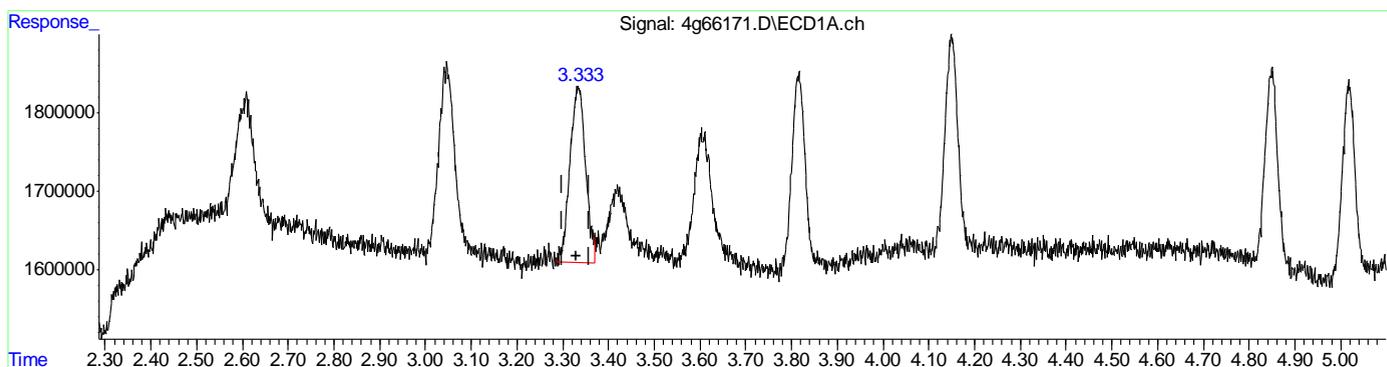
(4) gamma-BHC #2 (MA)
 4.067min 0.901 PPB
 response 4743223

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(4) gamma-BHC (MA)
 3.333min 0.976 PPB m
 response 5289537

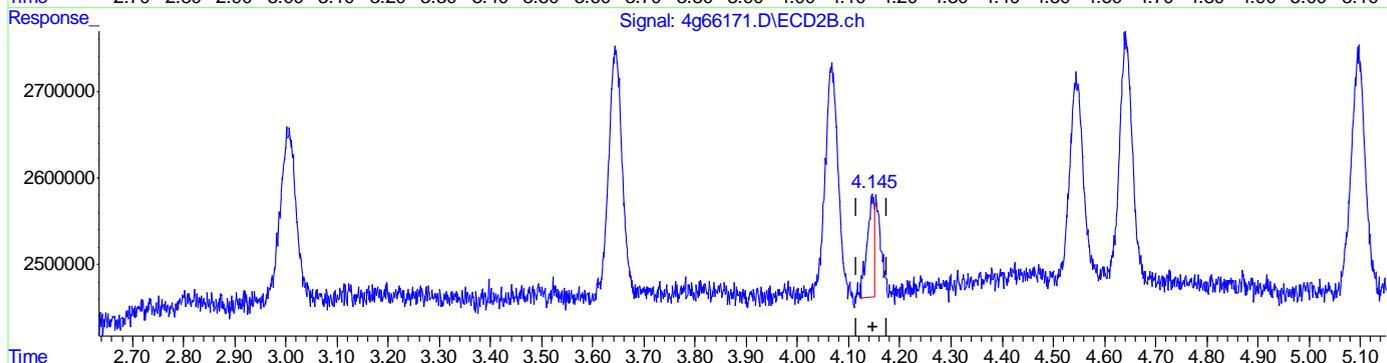
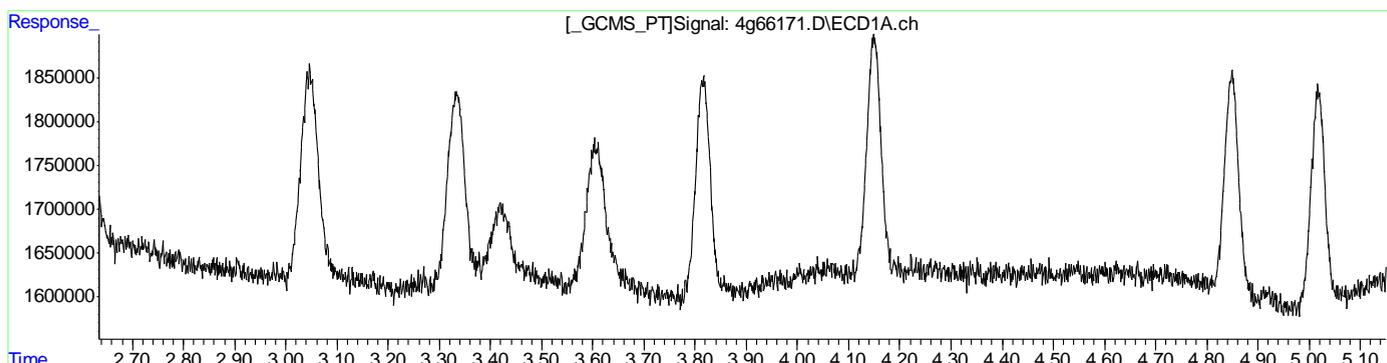
(4) gamma-BHC #2 (MA)
 4.067min 0.901 PPB
 response 4743223

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(6) beta-BHC (B)
 0.000min 0.000 PPB
 response 0

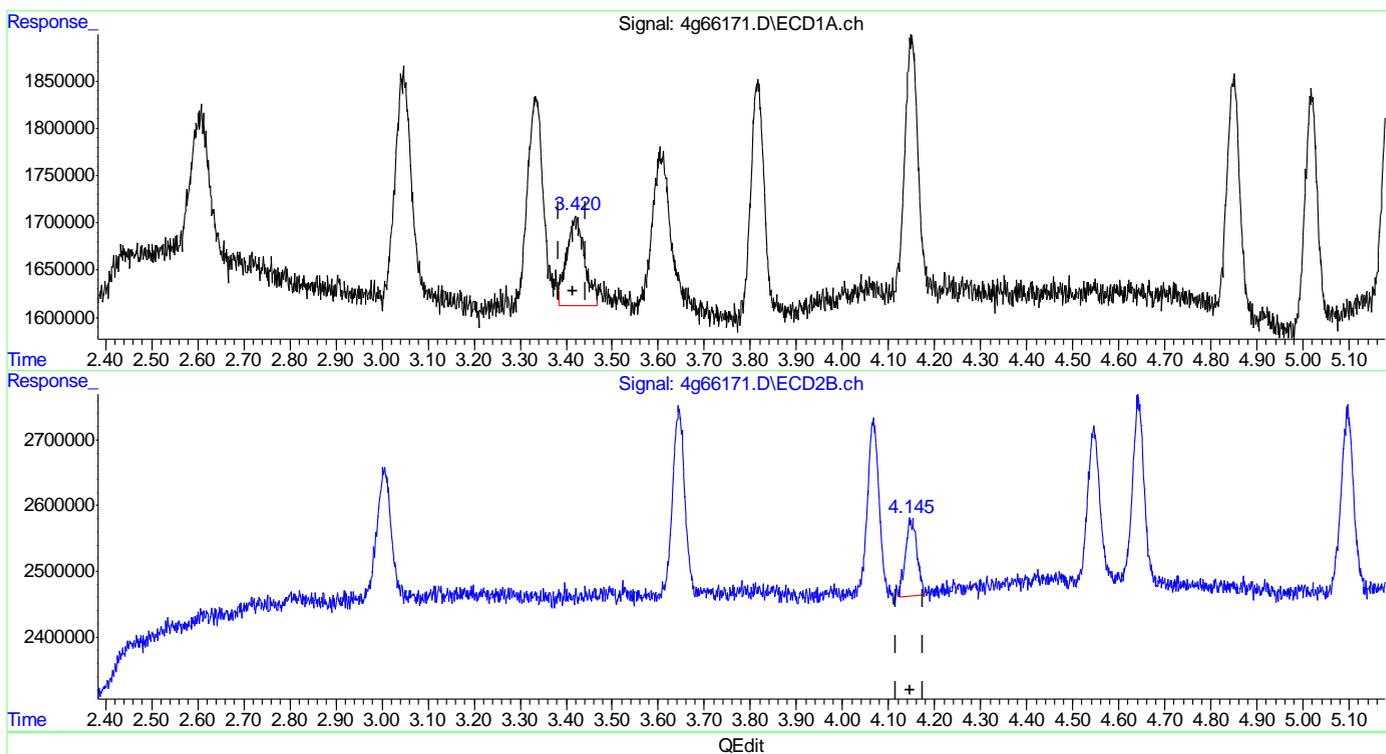
(6) beta-BHC #2 (B)
 4.145min 0.462 PPB
 response 1096323

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.1.7
13

(6) beta-BHC (B)
 3.420min 0.940 PPB m
 response 2537662

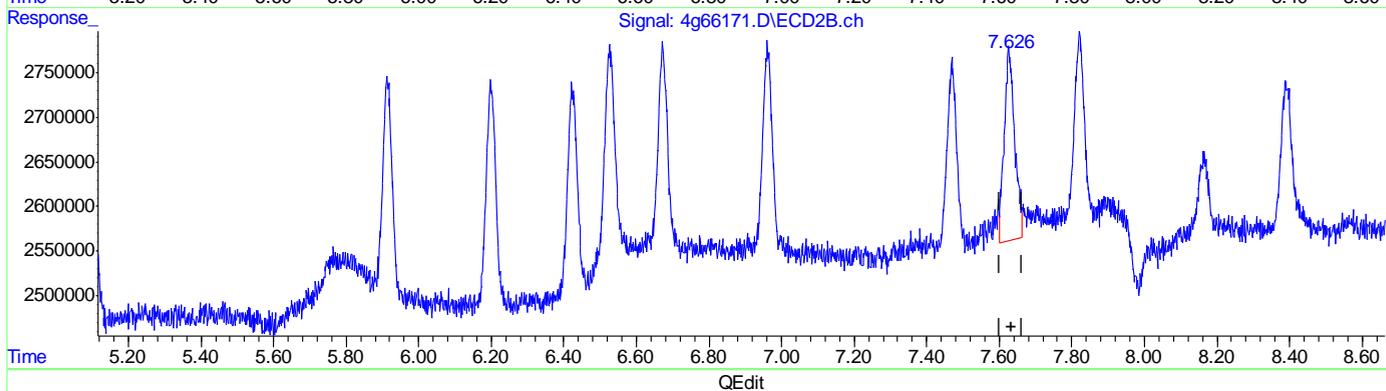
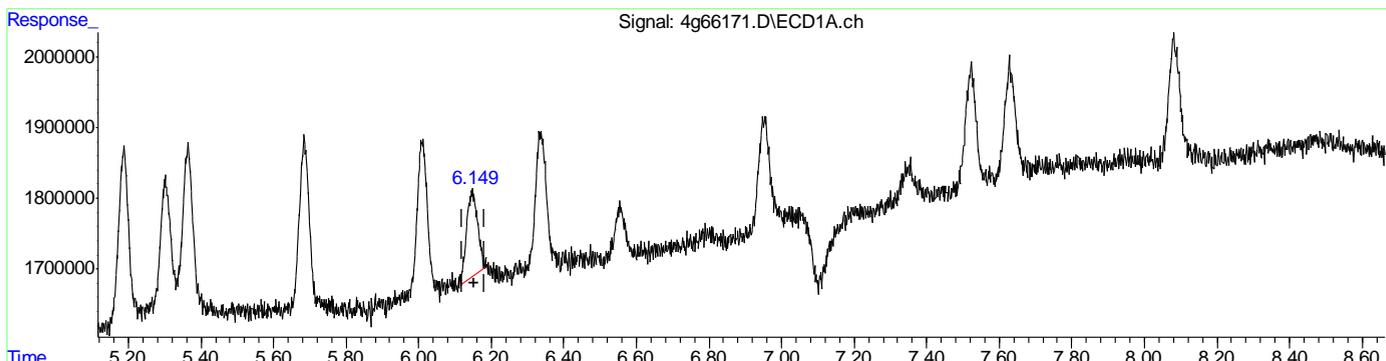
(6) beta-BHC #2 (B)
 4.145min 0.861 PPB m
 response 2042101

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 6.149min 0.679 PPB
 response 2538502

(16) 4,4'-DDD #2 (A)
 7.627min 1.127 PPB
 response 4289539

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:23:26 2016 RPT1

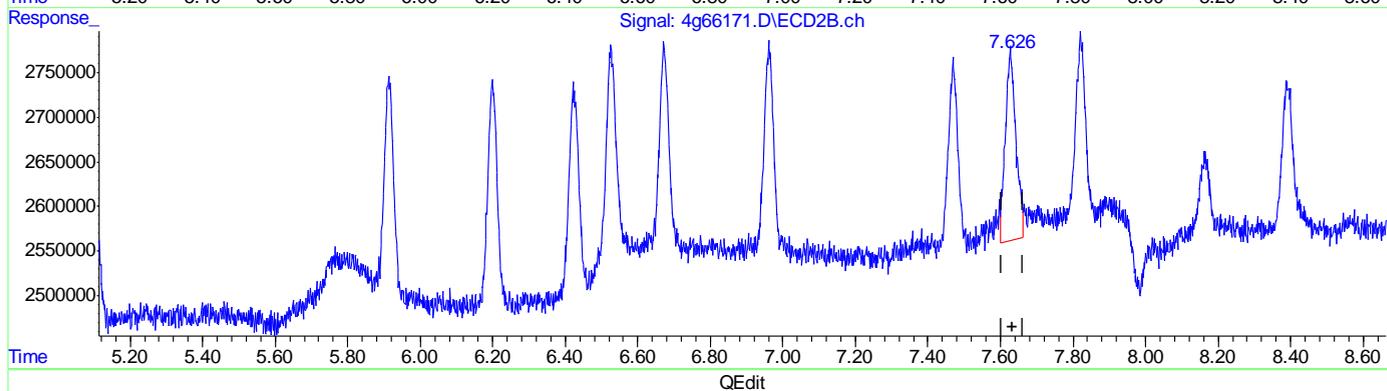
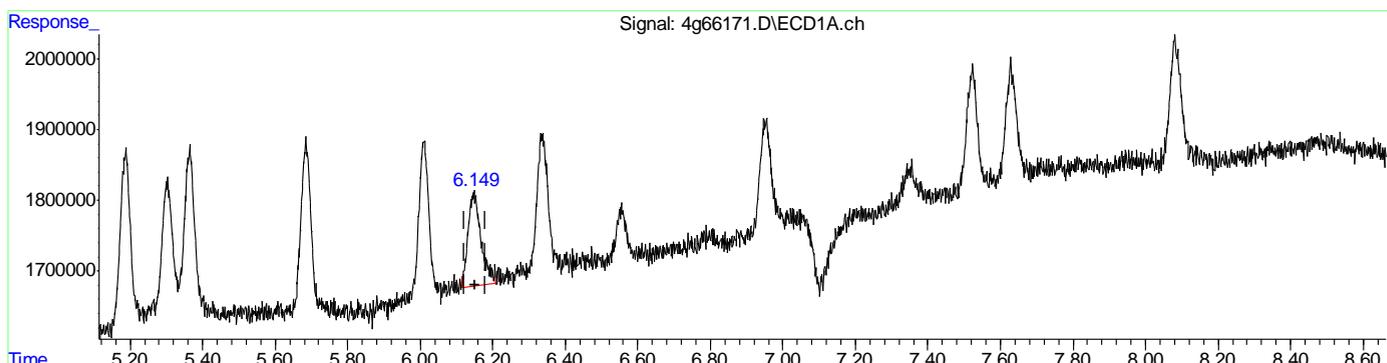
13.6.1.8
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 6.149min 0.883 PPB m
 response 3302283

(16) 4,4'-DDD #2 (A)
 7.627min 1.127 PPB
 response 4289539

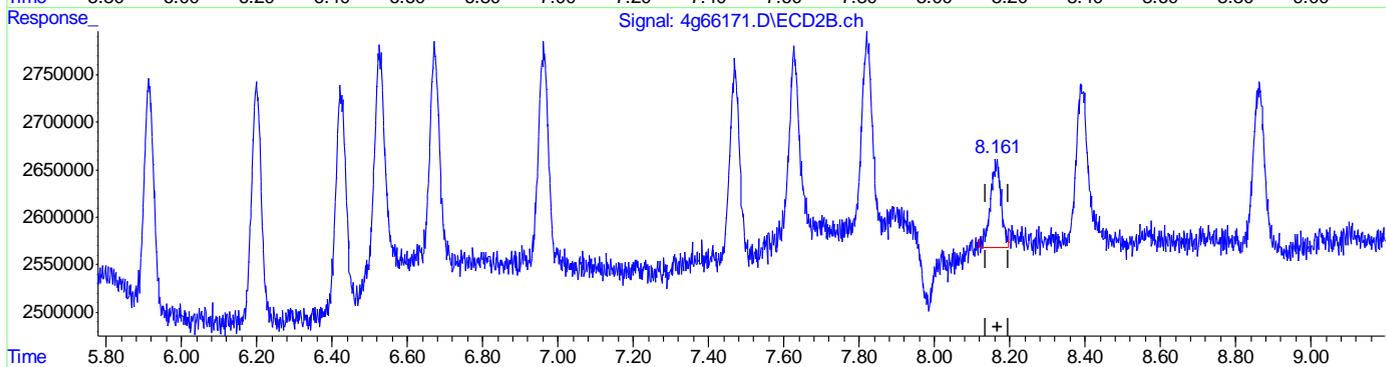
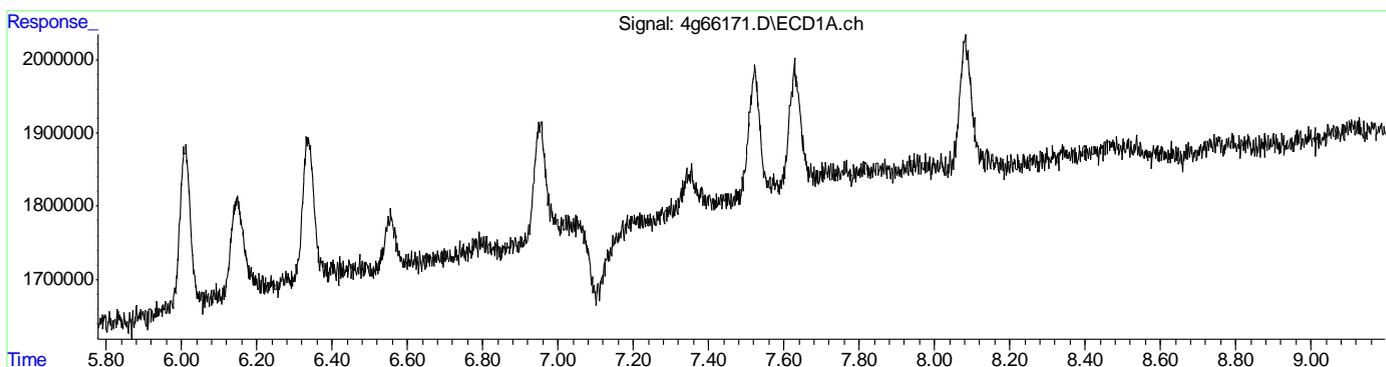
13.6.1.9
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDT (MA)
 0.000min 0.000 PPB
 response 0

(18) 4,4'-DDT #2 (MA)
 8.165min 1.395 PPB
 response 1777297

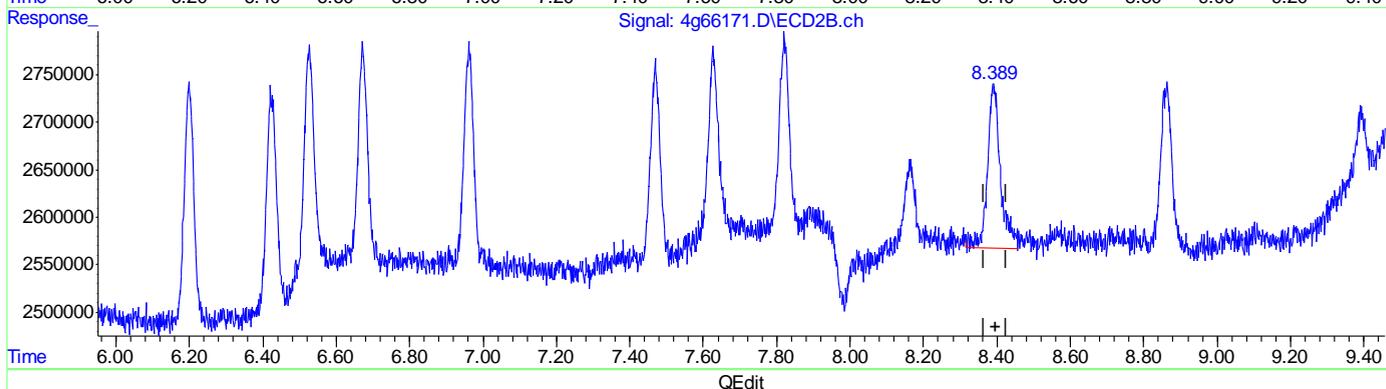
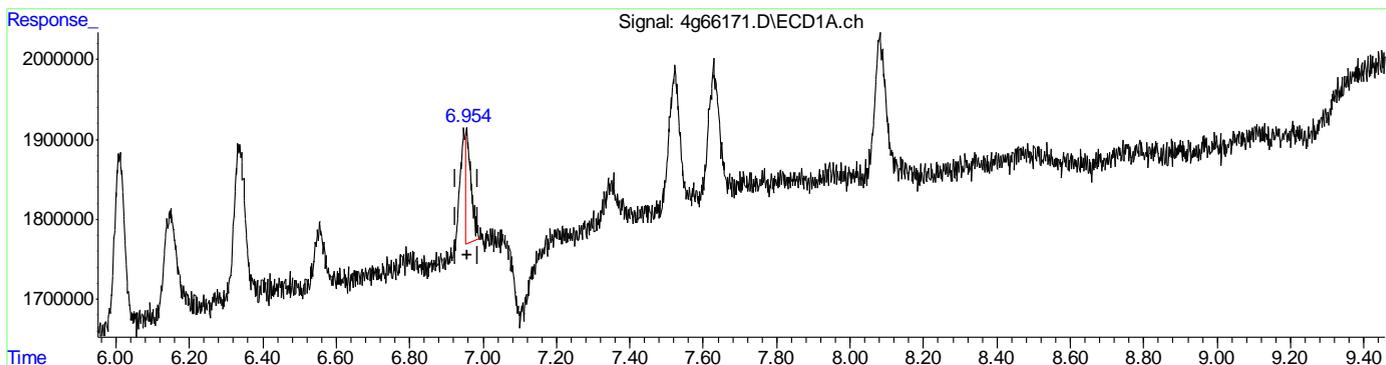
13.6.1.10
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(19) Endrin Aldehyde (B)
 6.954min 0.435 PPB
 response 1519479

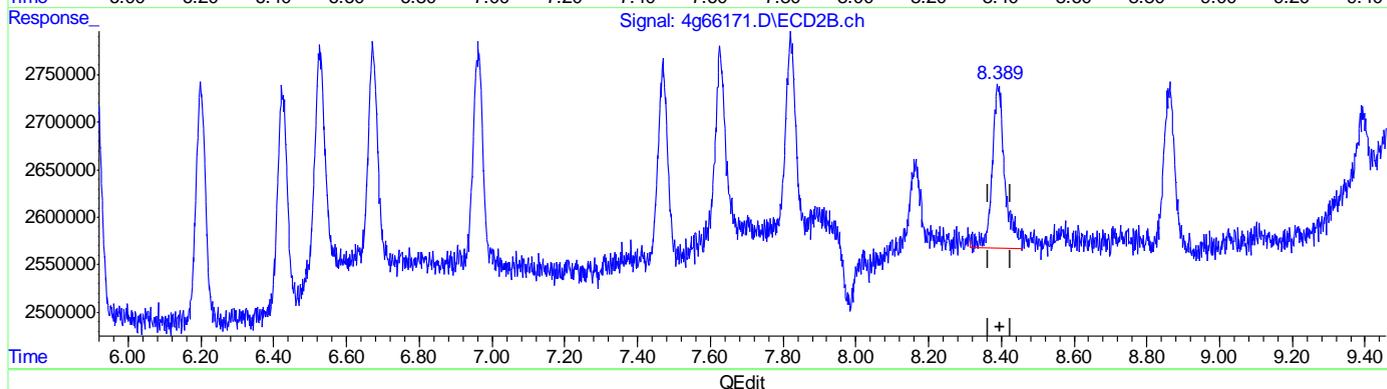
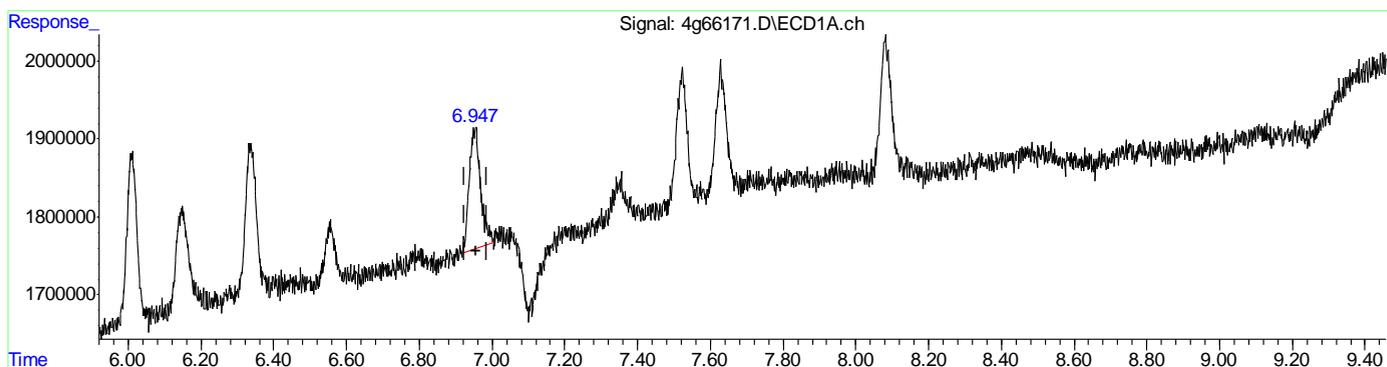
(19) Endrin Aldehyde #2 (B)
 8.393min 1.315 PPB
 response 4202759

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(19) Endrin Aldehyde (B)
 6.947min 0.963 PPB m
 response 3365737

(19) Endrin Aldehyde #2 (B)
 8.393min 1.315 PPB
 response 4202759

(+) = Expected Retention Time

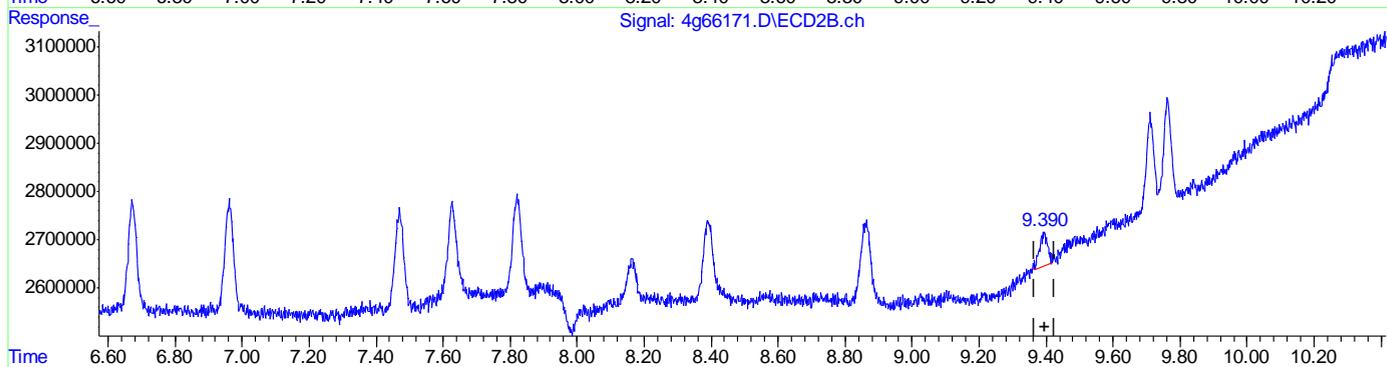
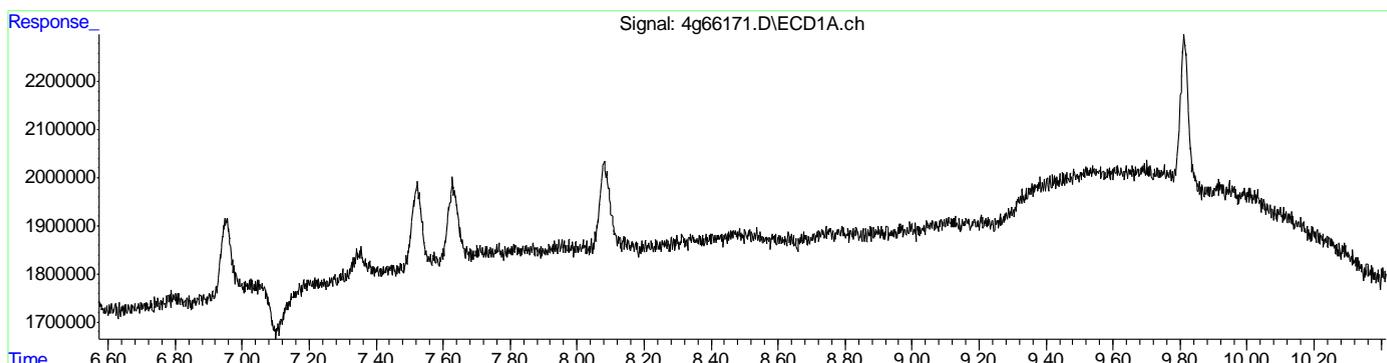
4PST1741.M Sat Mar 19 12:24:09 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(21) Methoxychlor (A)
 0.000min 0.000 PPB
 response 0

(21) Methoxychlor #2 (A)
 9.391min 0.699 PPB
 response 1096381

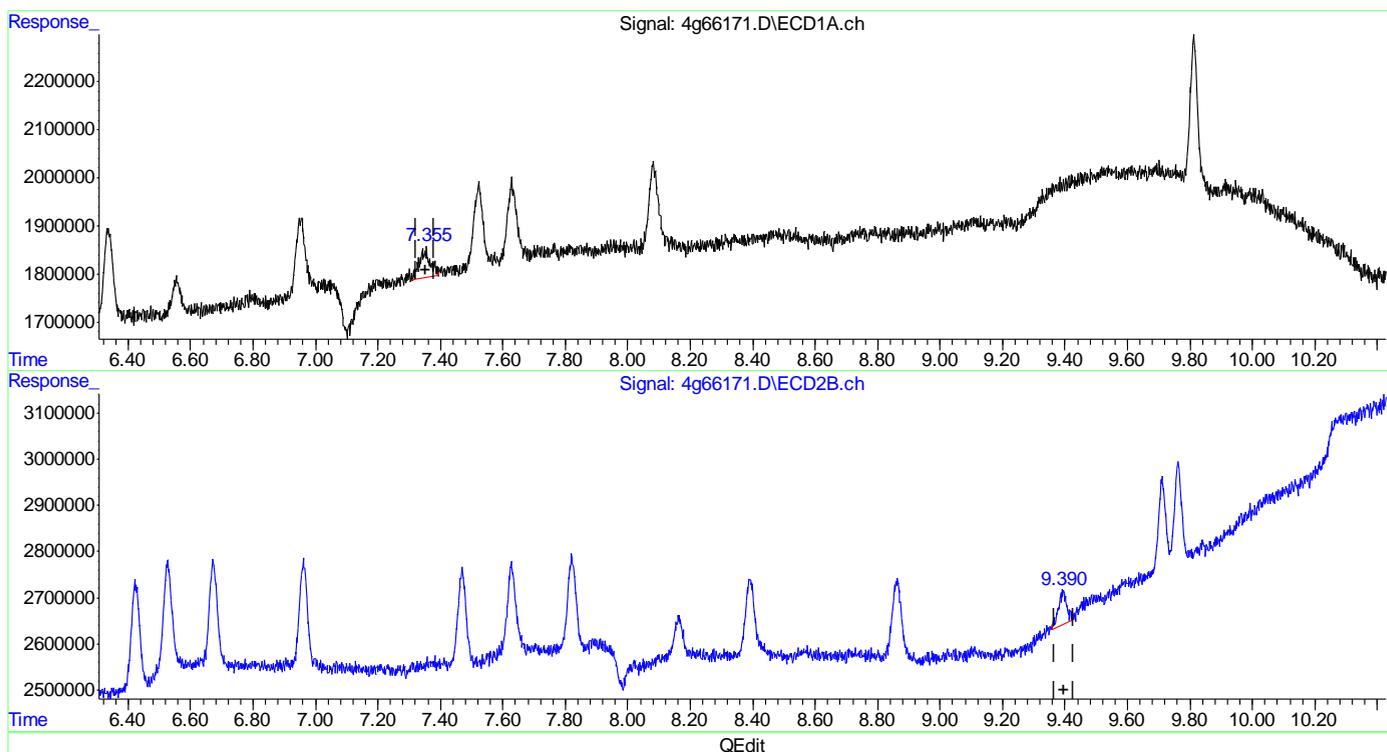
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:24:16 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.1.14
13

(21) Methoxychlor (A)
 7.355min 0.978 PPB m
 response 1421777

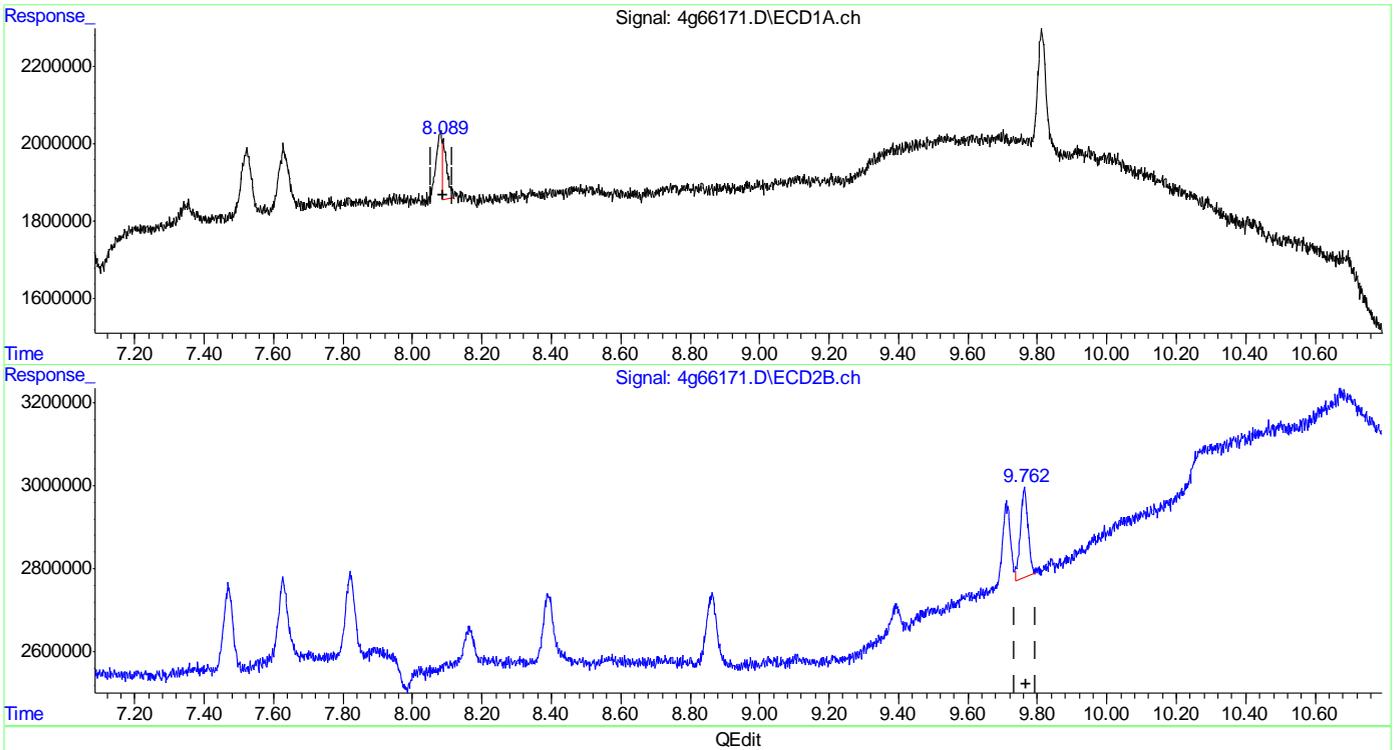
(21) Methoxychlor #2 (A)
 9.390min 0.858 PPB m
 response 1344536

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(23) Endrin Ketone (B)
 8.088min 0.351 PPB
 response 1455433

(23) Endrin Ketone #2 (B)
 9.762min 0.831 PPB
 response 3382121

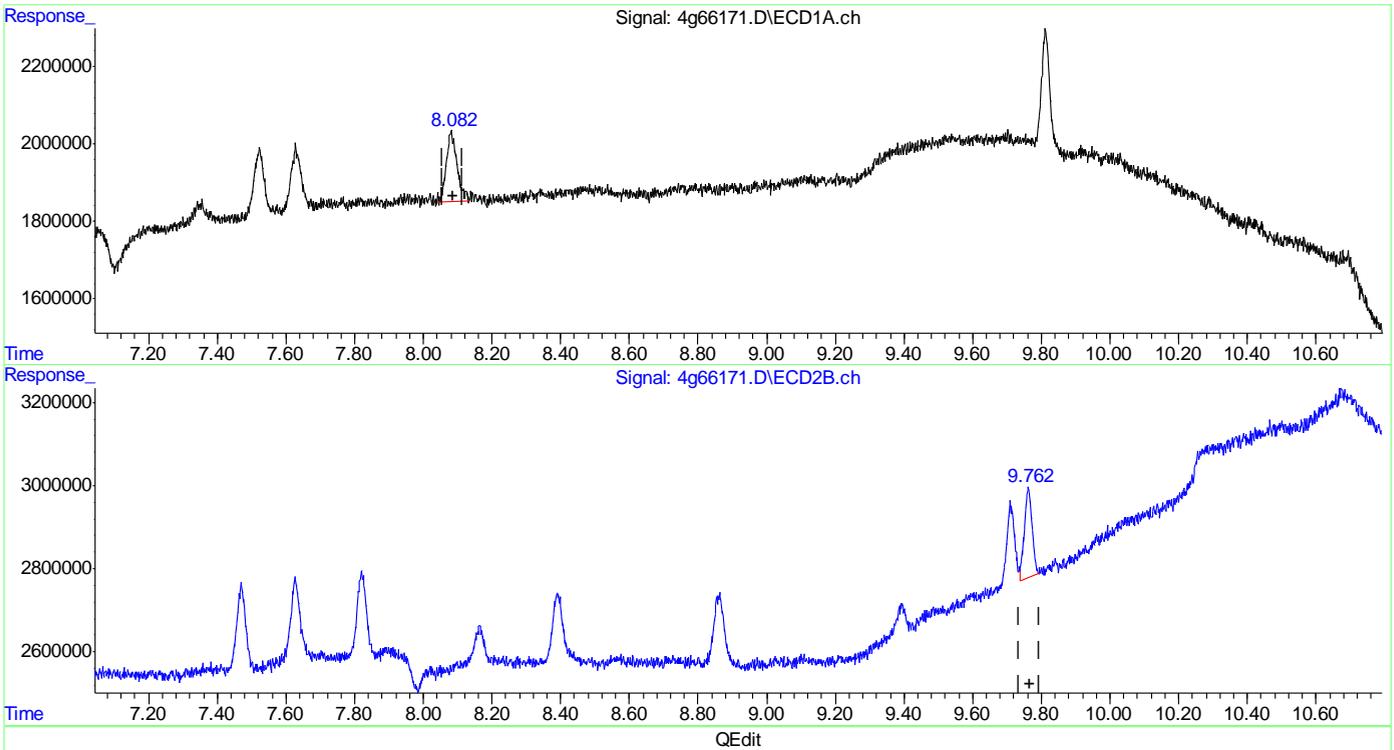
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:24:43 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(23) Endrin Ketone (B)
 8.082min 0.942 PPB m
 response 3903291

(23) Endrin Ketone #2 (B)
 9.762min 0.831 PPB
 response 3382121

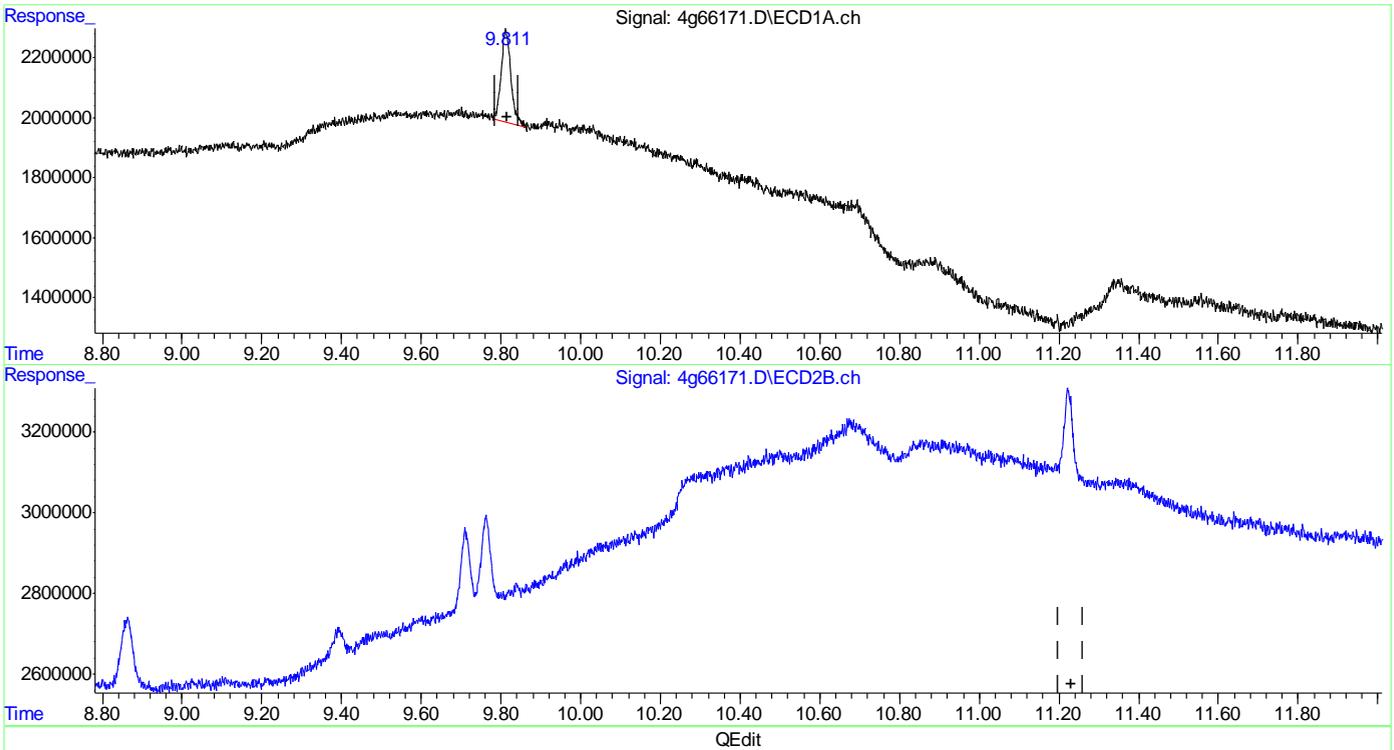
13.6.1.16
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)
 9.812min 1.193 PPB
 response 5280260

(24) Decachlorobiphenyl #2 (SA)
 0.000min 0.000 PPB
 response 0

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:24:57 2016 RPT1

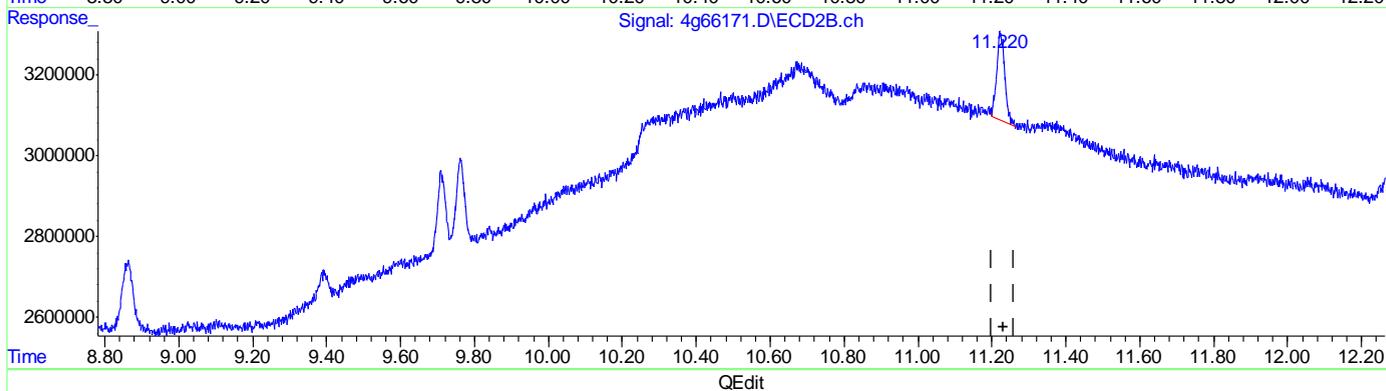
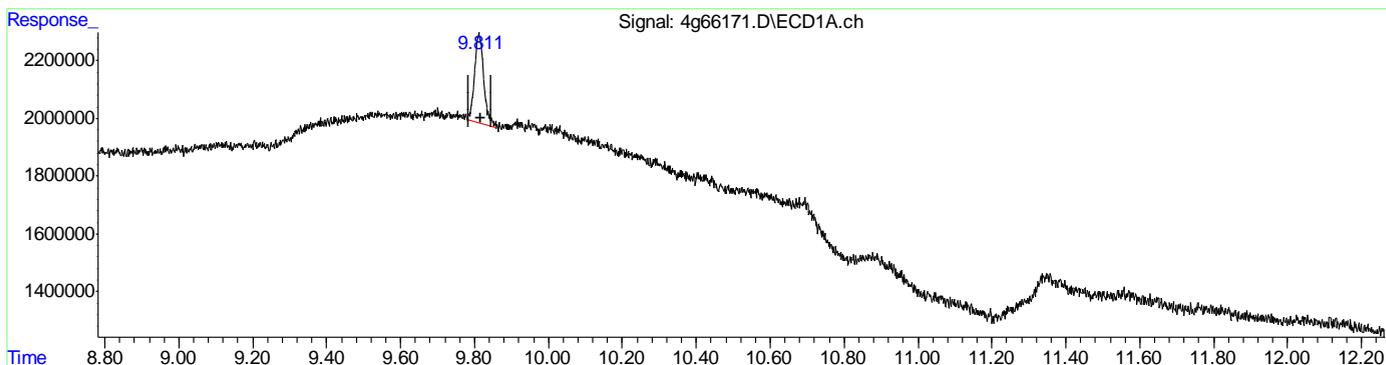
13.6.1.17
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:21:33 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)
 9.812min 1.193 PPB
 response 5280260

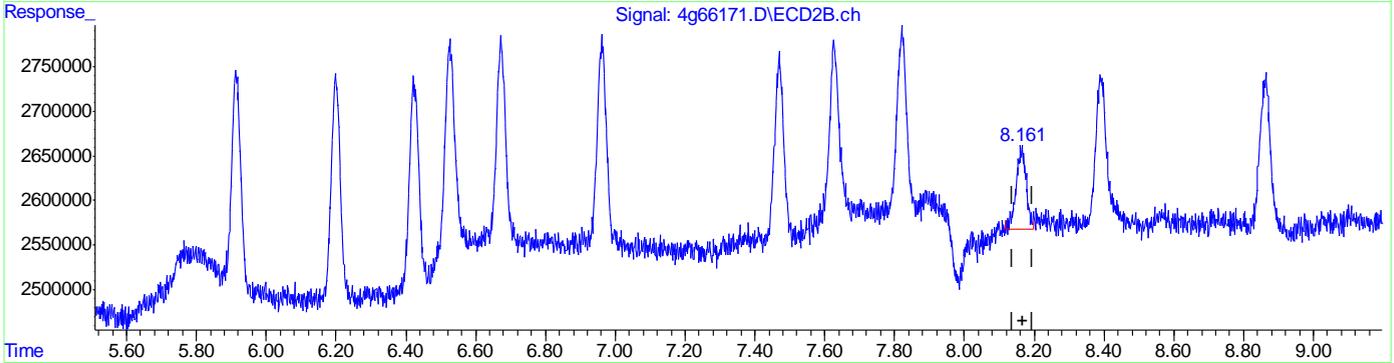
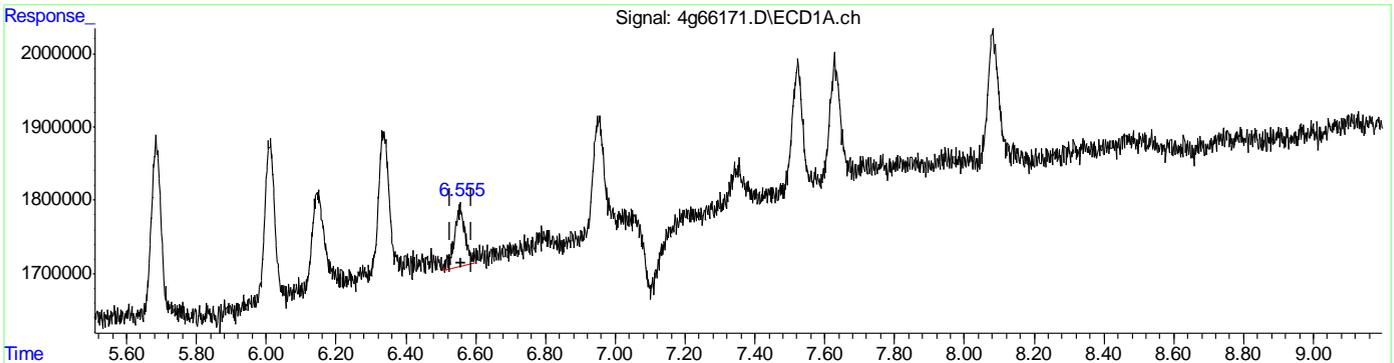
(24) Decachlorobiphenyl #2 (SA)
 11.220min 1.034 PPB m
 response 3259561

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66171.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:14 pm
 Operator : brittanp
 Sample : ic1741-1
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:25:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Retention Time (min)	Concentration (PPB)	Response
(18) 4,4'-DDT (MA)		
6.555min	1.902 PPB	1789273
(18) 4,4'-DDT #2 (MA)		
8.165min	1.395 PPB	1777297

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:49:51 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:57:58 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.062	2.227	232.4E6	223.3E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.605	3.003	8425480	8378716	1.977	1.918
Spiked Amount	40.000	Range	30 - 150	Recovery	=	4.94%#
24) SA Decachlor...	9.812	11.222	8904381	5943962	2.011	1.885
Spiked Amount	40.000		Recovery	=	5.03%	4.71%
Target Compounds						
3) A alpha-BHC	3.045	3.643	11392043	10526620	1.842	1.794
4) MA gamma-BHC	3.333	4.066	10646374	9584879	1.962	1.821
5) MA Heptachlor	3.606	4.642	9888944	9591422	1.885	1.824
6) B beta-BHC	3.418	4.146	5439204	4180558	2.013	1.763
7) B delta-BHC	3.813	4.546	10360923	8760652	1.987	1.847
8) MB Aldrin	4.148	5.098	10194437	9501053	1.857	1.841
9) B Heptachlo...	4.848	5.913	9855066	8816715	2.005	1.867
10) B gamma-Chl...	5.017	6.197	9378217	8738574	1.946	1.824
11) B alpha-Chl...	5.185	6.423	9394608	8931919	1.965	1.910
12) A Endosulfan I	5.362	6.526	9600563	8084504	1.810	1.725
13) B 4,4'-DDE	5.301	6.671	8079197	8089776	2.015	1.794
14) MA Dieldrin	5.685	6.962	9390718	8514750	1.896	1.803
15) MA Endrin	6.010	7.469	8111488	8047348	1.770	1.900
16) A 4,4'-DDD	6.152	7.627	6136462	8062905	1.640m	2.119 #
17) B Endosulfa...	6.336	7.820	8029802	7860175	1.816	1.903
18) MA 4,4'-DDT	6.552	8.160	3057971	3590730	2.356m	2.021
19) B Endrin Al...	6.952	8.389	6431189	7159922	1.838	2.240
20) B Endosulfa...	7.628	8.862	6472263	6704757	1.794	1.841
21) A Methoxychlor	7.345	9.390	2204791	2736111	1.515m	1.745
22) Mirex	7.519	9.712	7097047	6431750	1.979	1.961
23) B Endrin Ke...	8.084	9.763	7328225	7245174	1.768	1.780

13.62
13

SemiQuant Compounds - Not Calibrated on this Instrument

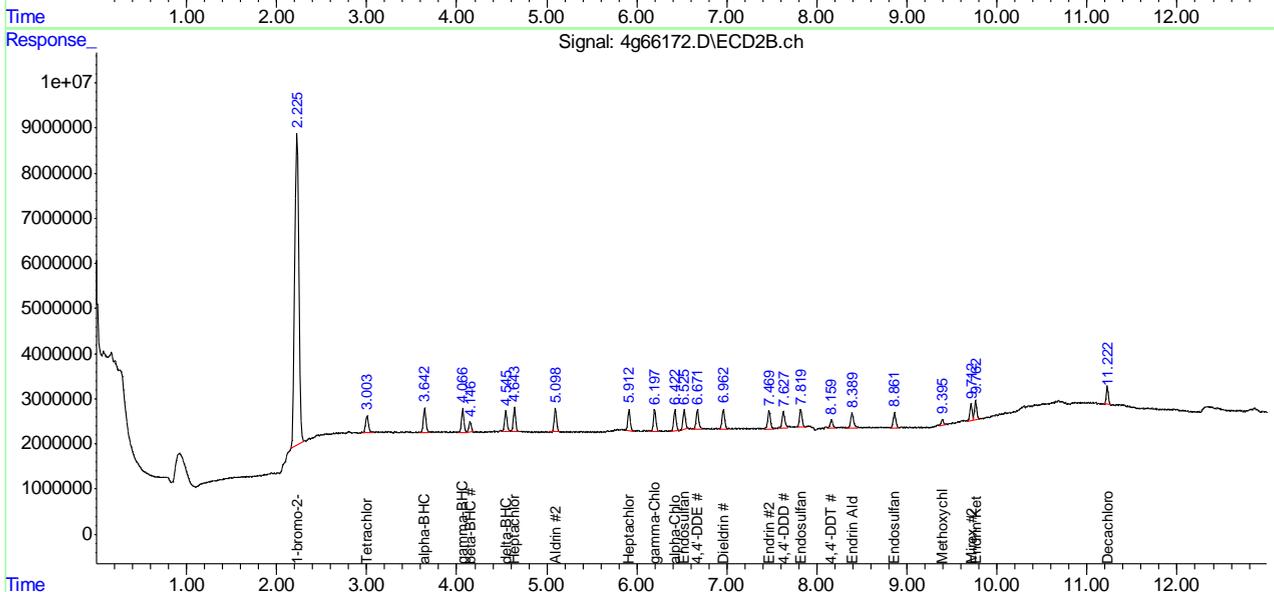
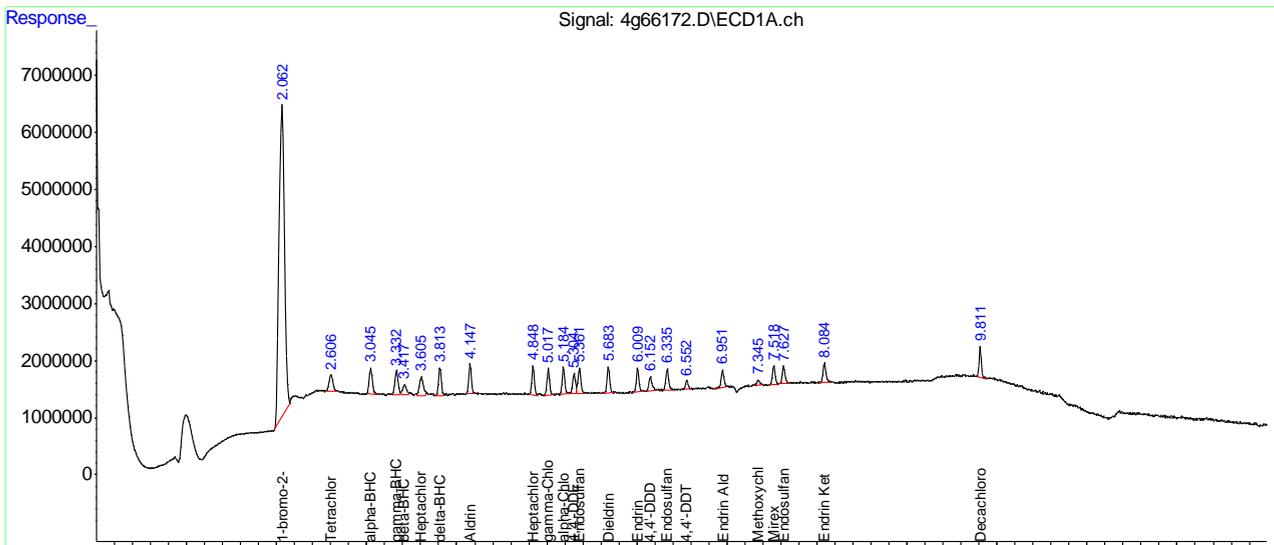
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:57:58 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.2
13

Manual Integration Approval Summary

Sample Number: G4G1741-IC1741 Method: SW846 8081B
Lab FileID: 4G66172.D Analyst approved: 03/19/16 12:57 Joseph Ravino
Injection Time: 03/18/16 18:29 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDD	72-54-8	1	6.15	Poor instrument integration
4,4'-DDT	50-29-3	1	6.55	Poor instrument integration
Methoxychlor	72-43-5	1	7.34	Poor instrument integration

13.6.2.1

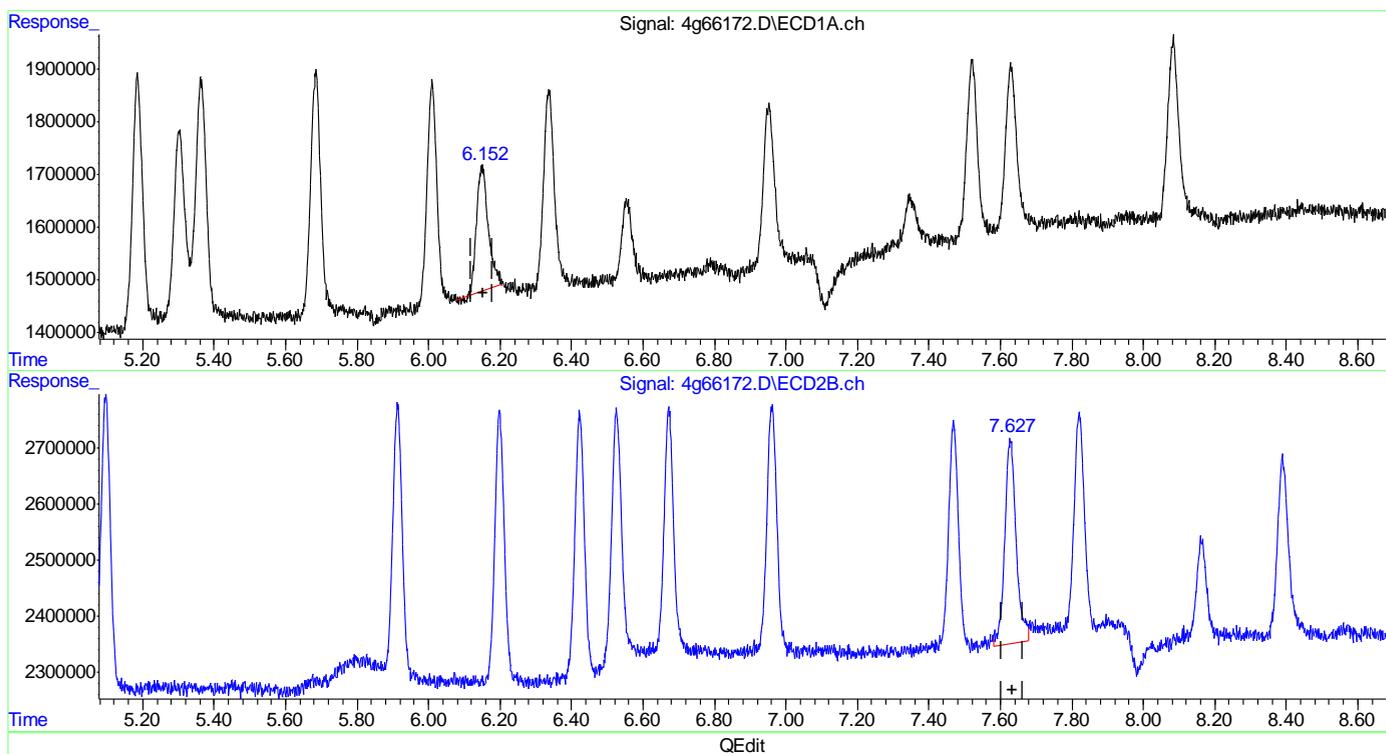
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:27:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 6.152min 1.457 PPB
 response 5449046

(16) 4,4'-DDD #2 (A)
 7.627min 2.119 PPB
 response 8062905

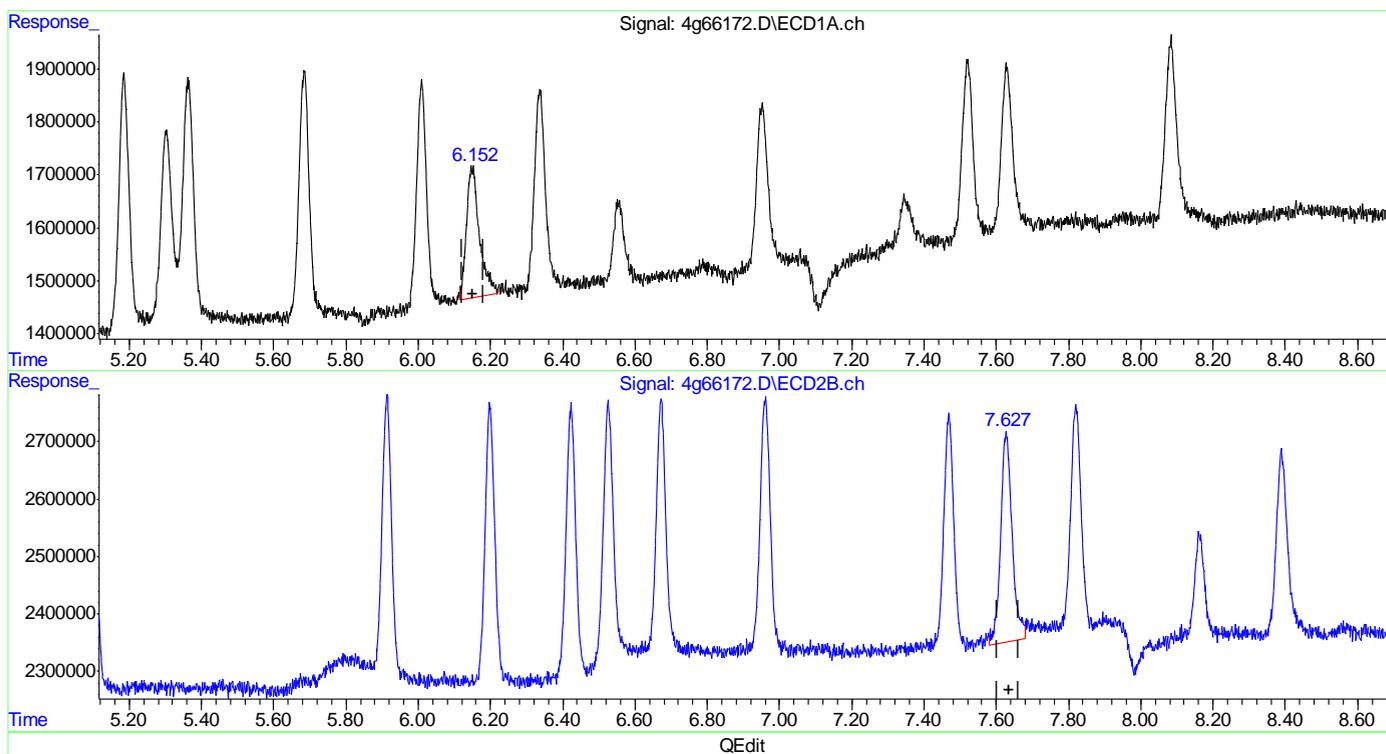
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:28:48 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:27:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(16) 4,4'-DDD (A)
 6.152min 1.640 PPB m
 response 6136462

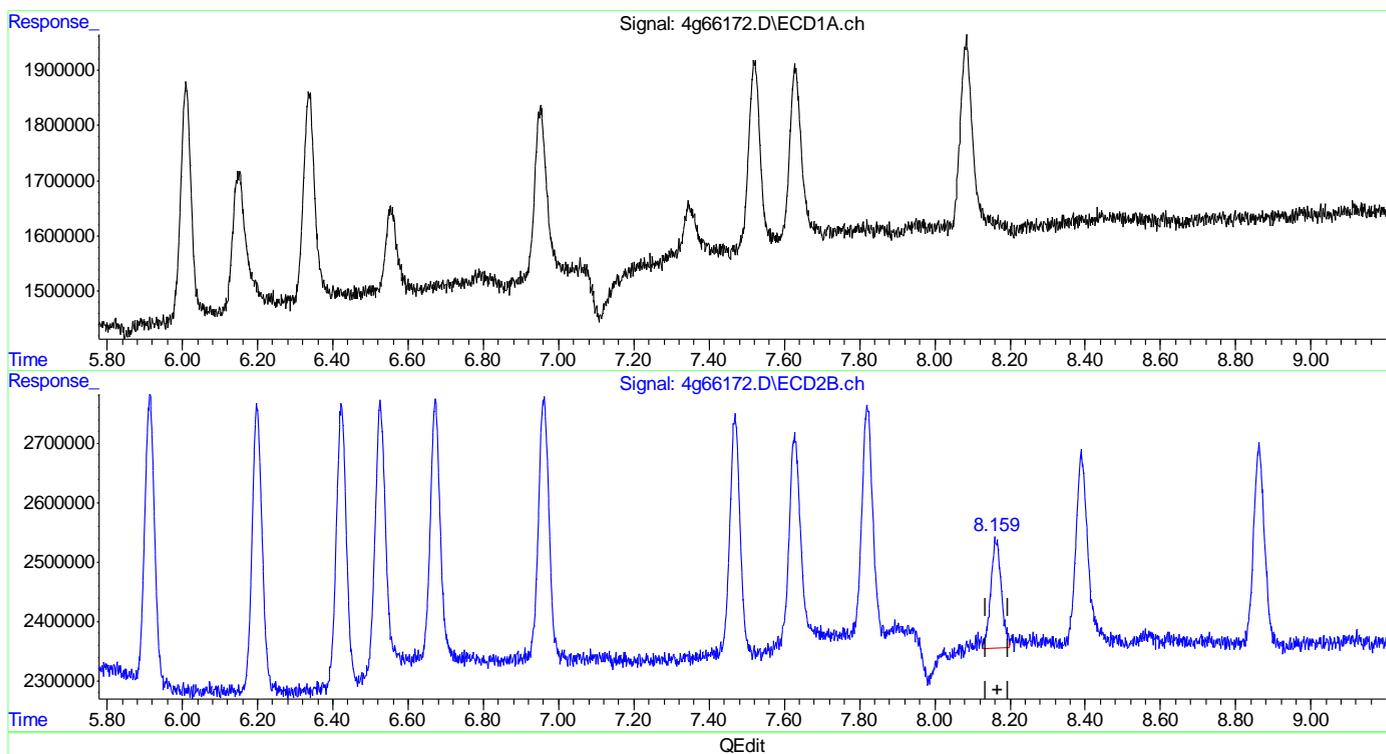
(16) 4,4'-DDD #2 (A)
 7.627min 2.119 PPB
 response 8062905

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:27:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDT (MA)
 0.000min 0.000 PPB
 response 0

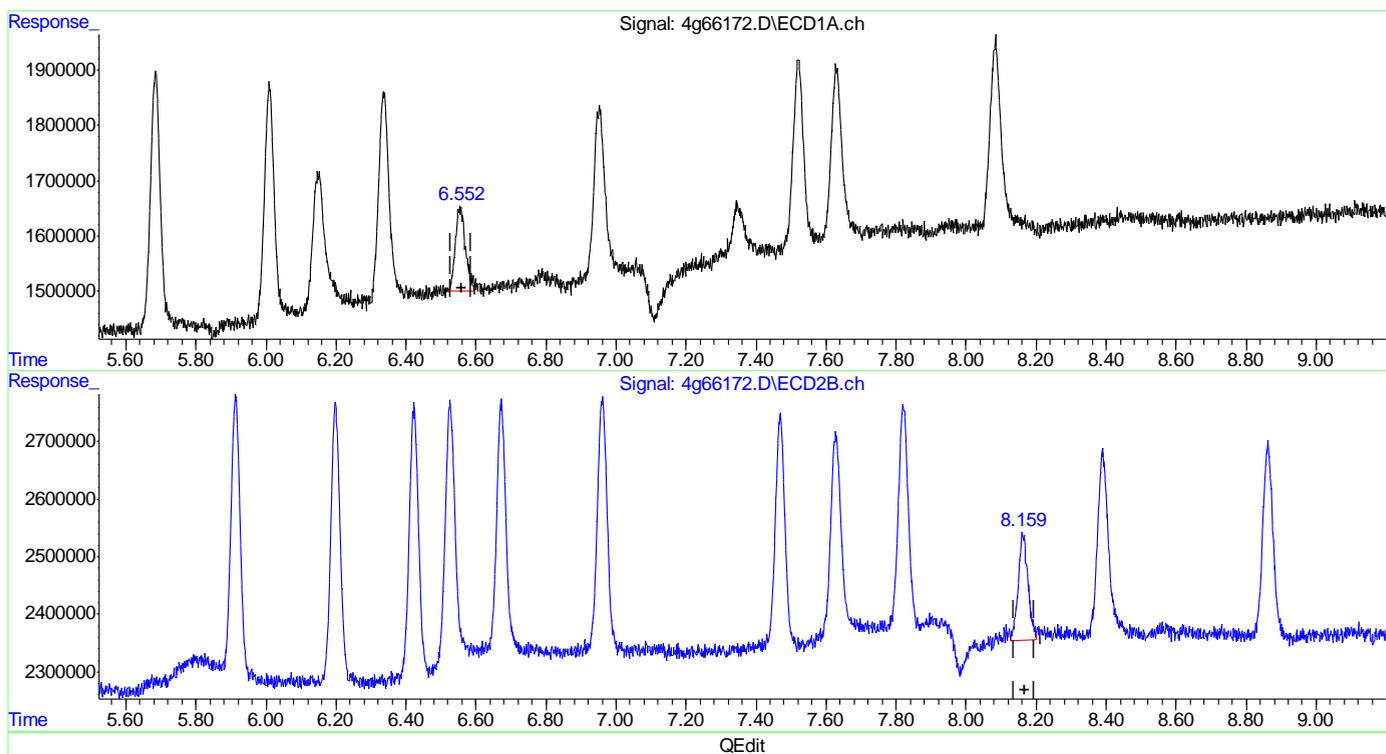
(18) 4,4'-DDT #2 (MA)
 8.160min 2.021 PPB
 response 3590730

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:27:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDT (MA)
 6.552min 2.356 PPB m
 response 3057971

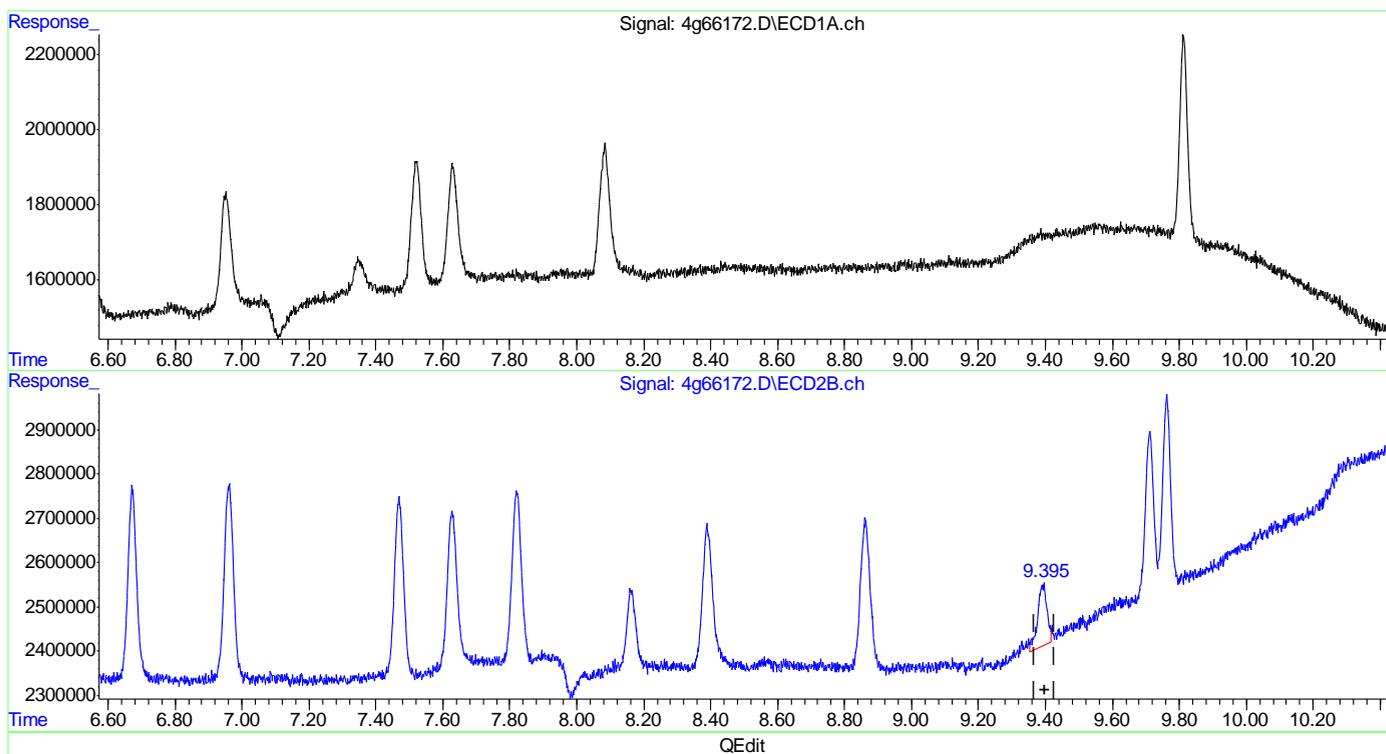
(18) 4,4'-DDT #2 (MA)
 8.160min 2.021 PPB
 response 3590730

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:27:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(21) Methoxychlor (A)
 0.000min 0.000 PPB
 response 0

(21) Methoxychlor #2 (A)
 9.390min 1.745 PPB
 response 2736111

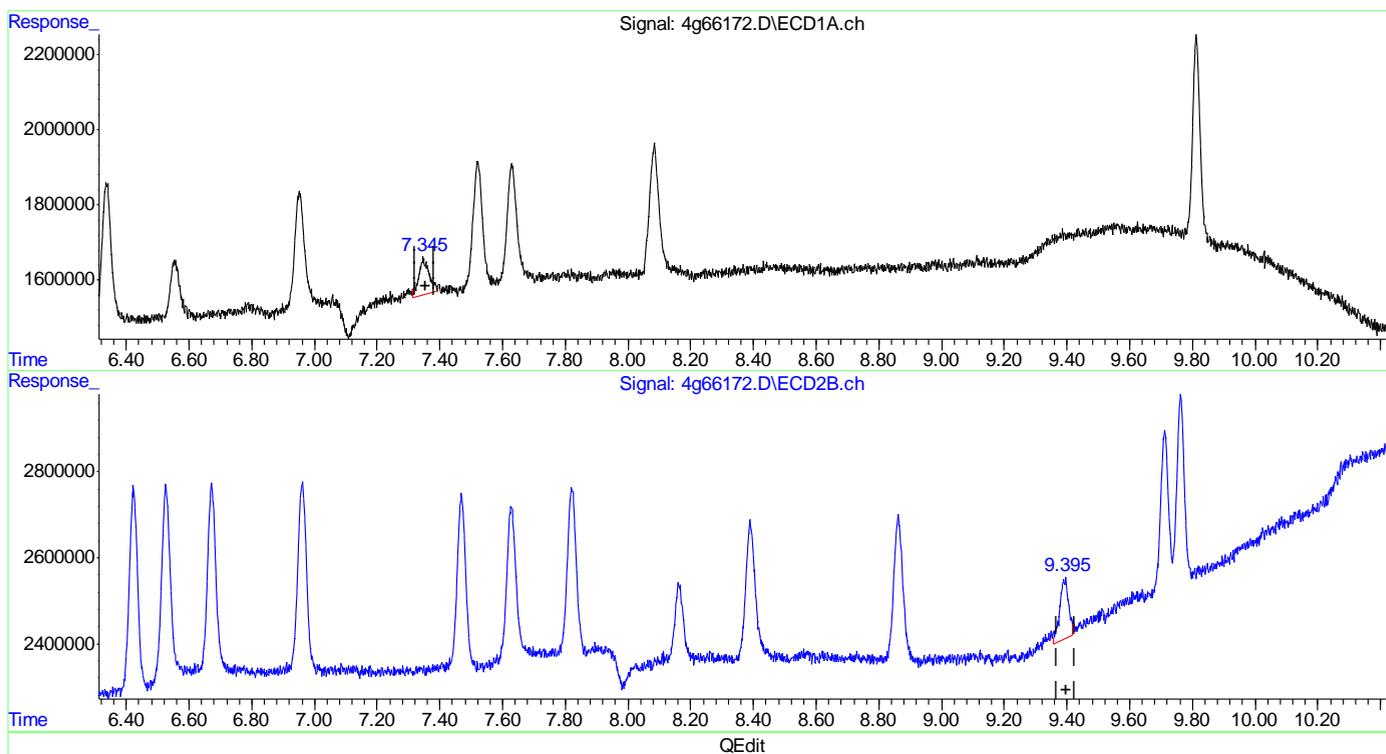
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:29:16 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66172.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:29 pm
 Operator : brittanp
 Sample : ic1741-2
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:27:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(21) Methoxychlor (A)
 7.345min 1.515 PPB m
 response 2204791

(21) Methoxychlor #2 (A)
 9.390min 1.745 PPB
 response 2736111

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:29:40 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66173.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:44 pm
 Operator : brittanp
 Sample : ic1741-5
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.054	2.219	240.0E6	226.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.602	3.001	22870581	20754397	5.197	4.691
Spiked Amount	40.000 Range	30 - 150	Recovery =	12.99%#	11.73%#	
24) SA Decachlor...	9.813	11.224	23175600	16287586	5.067	5.100
Spiked Amount	40.000		Recovery =	12.67%	12.75%	
Target Compounds						
3) A alpha-BHC	3.043	3.642	30089762	26111549	4.710	4.393
4) MA gamma-BHC	3.329	4.066	26986219	23734463	4.815	4.453
5) MA Heptachlor	3.605	4.641	25322182	23929088	4.672	4.492
6) B beta-BHC	3.418	4.147	15127844	10939195	5.420	4.555
7) B delta-BHC	3.813	4.545	25641495	21757846	4.761	4.529
8) MB Aldrin	4.147	5.096	26051794	23382807	4.595	4.474
9) B Heptachlo...	4.847	5.913	24683763	21653337	4.862	4.528
10) B gamma-Chl...	5.017	6.200	23607988	22159208	4.742	4.567
11) B alpha-Chl...	5.186	6.423	22862053	22257535	4.631	4.699
12) A Endosulfan I	5.363	6.526	24510010	21248966	4.474	4.477
13) B 4,4'-DDE	5.303	6.672	18707804	20362600	4.518	4.459
14) MA Dieldrin	5.683	6.961	23221515	21683262	4.541	4.533
15) MA Endrin	6.009	7.469	20973259	19982994	4.432	4.659
16) A 4,4'-DDD	6.149	7.628	16823710	18173035	4.354	4.716
17) B Endosulfa...	6.336	7.821	20450551	19430447	4.477	4.644
18) MA 4,4'-DDT	6.555	8.163	10031570	11393639	4.719	4.647
19) B Endrin Al...	6.951	8.391	16967572	15721325	4.694	4.856
20) B Endosulfa...	7.629	8.863	16944908	16785782	4.546	4.552
21) A Methoxychlor	7.346	9.392	5899221	7028585	3.924m	4.427
22) Mirex	7.520	9.711	17657185	16180897	4.767	4.871
23) B Endrin Ke...	8.083	9.762	19187568	19013756	4.482	4.613

SemiQuant Compounds - Not Calibrated on this Instrument

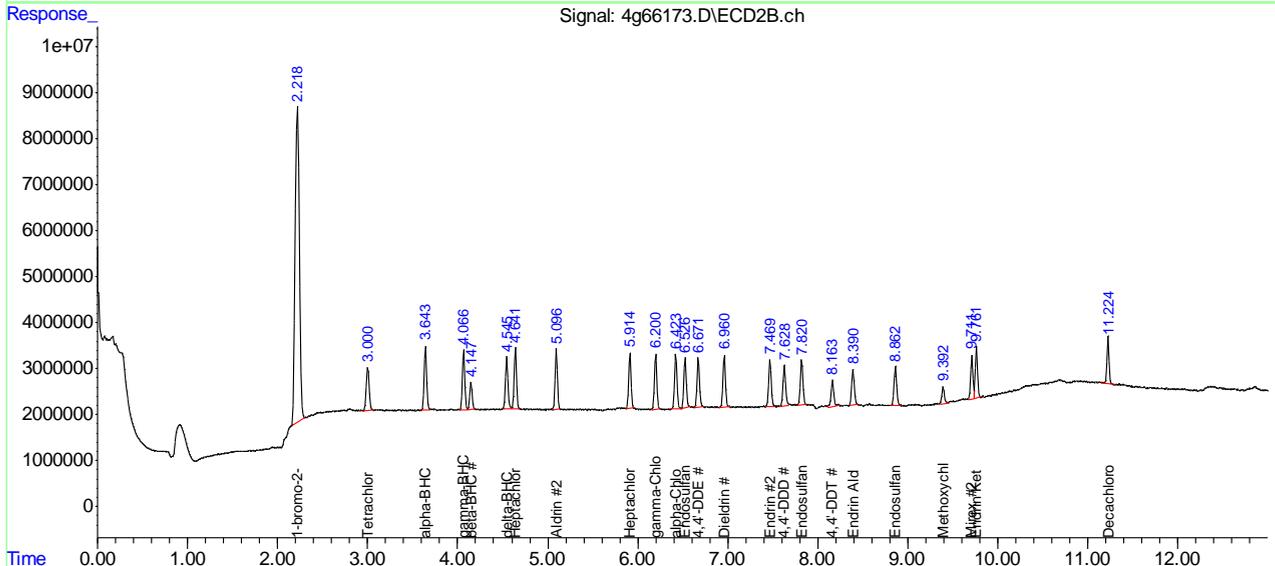
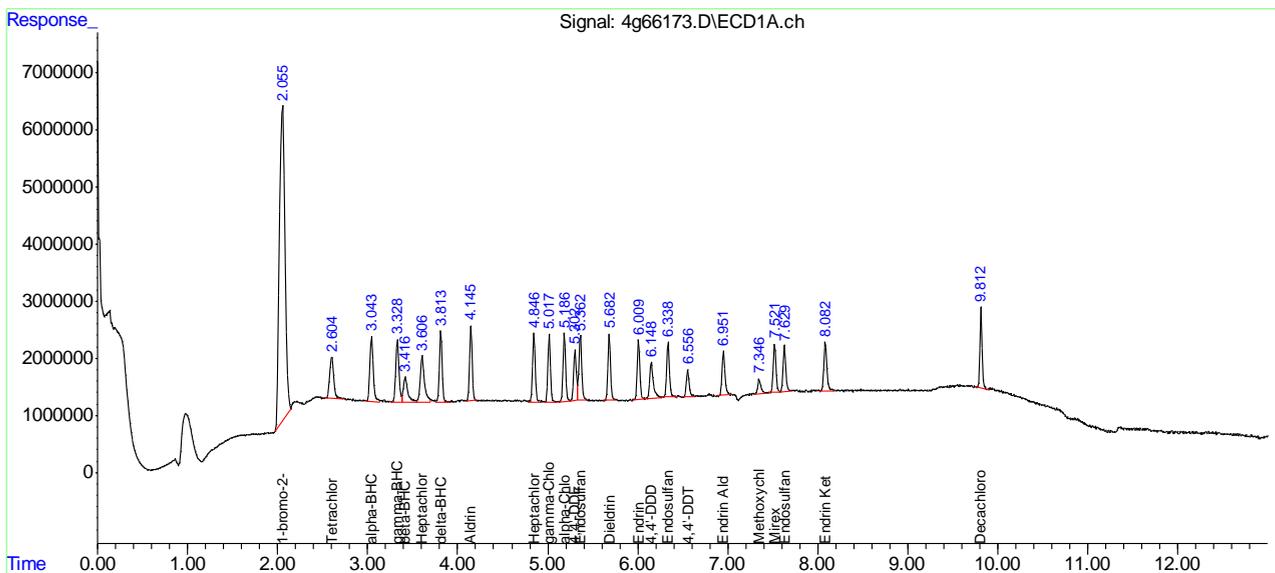
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66173.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:44 pm
 Operator : brittanp
 Sample : ic1741-5
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:05 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.3
13

Manual Integration Approval Summary

Sample Number: G4G1741-IC1741 Method: SW846 8081B
Lab FileID: 4G66173.D Analyst approved: 03/19/16 12:57 Joseph Ravino
Injection Time: 03/18/16 18:44 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	1	7.35	Poor instrument integration

13.6.3.1

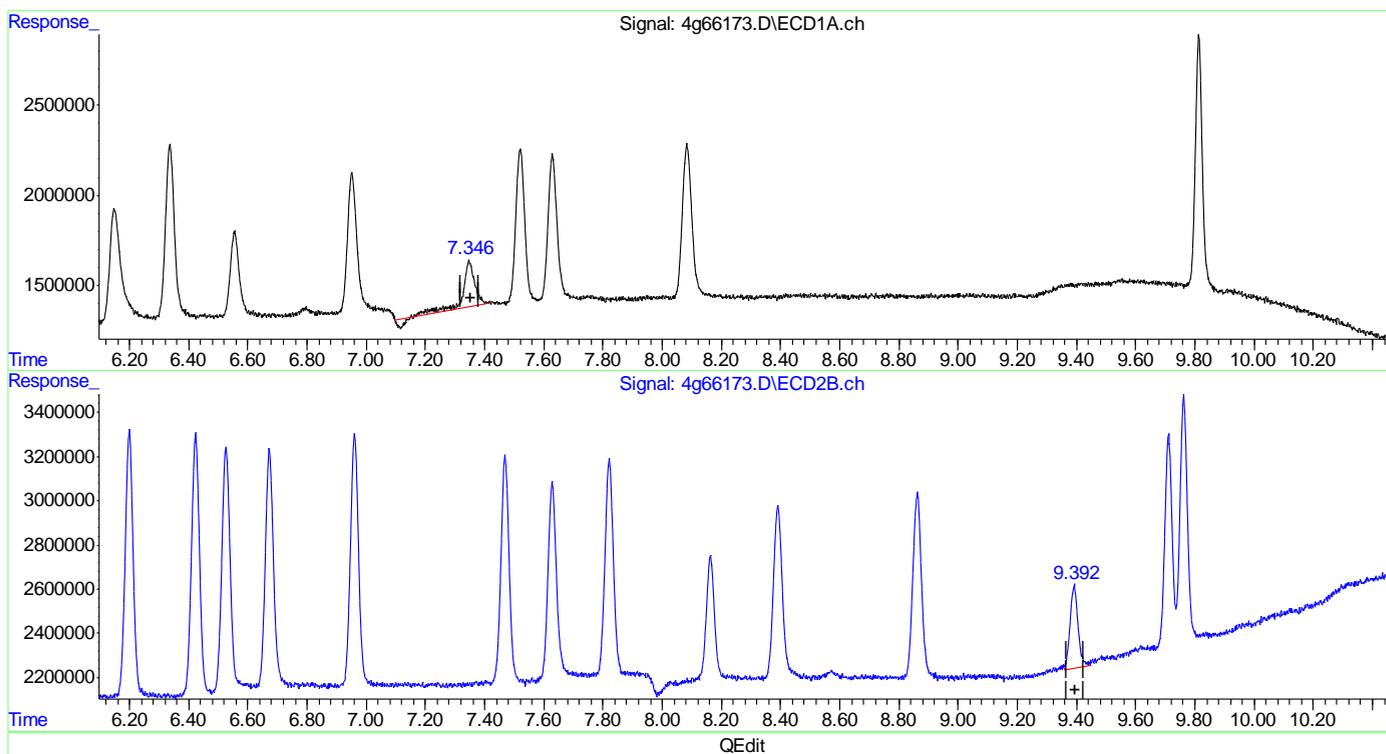
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66173.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:44 pm
 Operator : brittanp
 Sample : ic1741-5
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:30:50 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(21) Methoxychlor (A)

7.348min 4.574 PPB

response 6875787

(21) Methoxychlor #2 (A)

9.392min 4.427 PPB

response 7028585

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:31:20 2016 RPT1

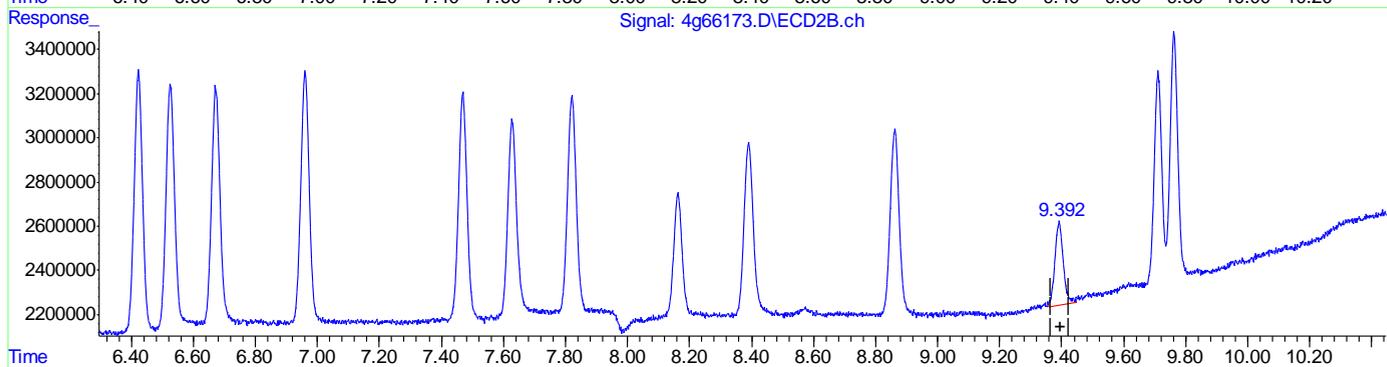
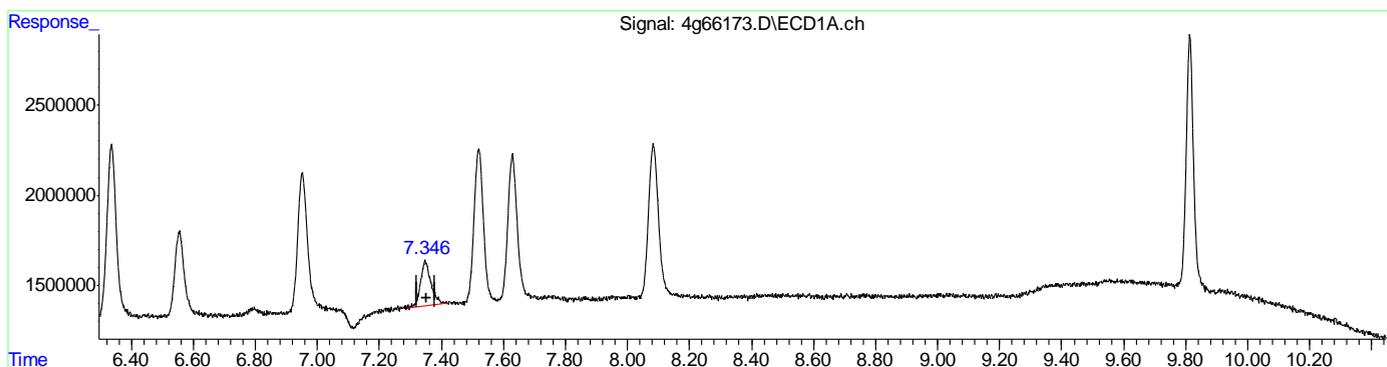
Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66173.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:44 pm
 Operator : brittanp
 Sample : ic1741-5
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:30:50 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(21) Methoxychlor (A)
 7.346min 3.924 PPB m
 response 5899221

(21) Methoxychlor #2 (A)
 9.392min 4.427 PPB
 response 7028585

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66174.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:58 pm
 Operator : brittanp
 Sample : ic1741-10
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:12 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.060	2.226	233.5E6	223.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.607	3.005	45504417	40137454	10.630	9.182
Spiked Amount	40.000 Range	30 - 150	Recovery	=	26.58%#	22.96%#
24) SA Decachlor...	9.813	11.225	45307084	30850098	10.183	9.777
Spiked Amount	40.000		Recovery	=	25.46%	24.44%
Target Compounds						
3) A alpha-BHC	3.046	3.644	59527744	52838102	9.578	8.996
4) MA gamma-BHC	3.333	4.067	52695955	47682943	9.666	9.054
5) MA Heptachlor	3.607	4.642	50408518	48179406	9.562	9.154
6) B beta-BHC	3.420	4.149	28185646	22530971	10.382	9.495
7) B delta-BHC	3.815	4.545	50278763	43962631	9.597	9.260
8) MB Aldrin	4.149	5.097	53675795	47595677	9.734	9.217
9) B Heptachlo...	4.848	5.914	48374463	44452754	9.795	9.407
10) B gamma-Chl...	5.018	6.199	47558825	44312537	9.821	9.242
11) B alpha-Chl...	5.186	6.423	46852373	43816367	9.756	9.361
12) A Endosulfan I	5.364	6.526	50006476	42138358	9.384	8.984
13) B 4,4'-DDE	5.304	6.672	38172934	41199388	9.476	9.131
14) MA Dieldrin	5.685	6.960	46751697	43533154	9.398	9.210
15) MA Endrin	6.009	7.469	41658895	38814076	9.050	9.158
16) A 4,4'-DDD	6.148	7.628	35453433	35462268	9.433	9.313
17) B Endosulfa...	6.336	7.821	41736558	38737604	9.393	9.371
18) MA 4,4'-DDT	6.555	8.163	22516309	23312920	9.147	8.707
19) B Endrin Al...	6.952	8.391	35352048	31657555	10.055	9.896
20) B Endosulfa...	7.629	8.862	34302192	35425628	9.461	9.722
21) A Methoxychlor	7.349	9.389	12892108	14198930	8.817	9.050m
22) Mirex	7.520	9.711	35380115	32231093	9.820	9.819m
23) B Endrin Ke...	8.083	9.762	39929186	39608280	9.588	9.724

SemiQuant Compounds - Not Calibrated on this Instrument

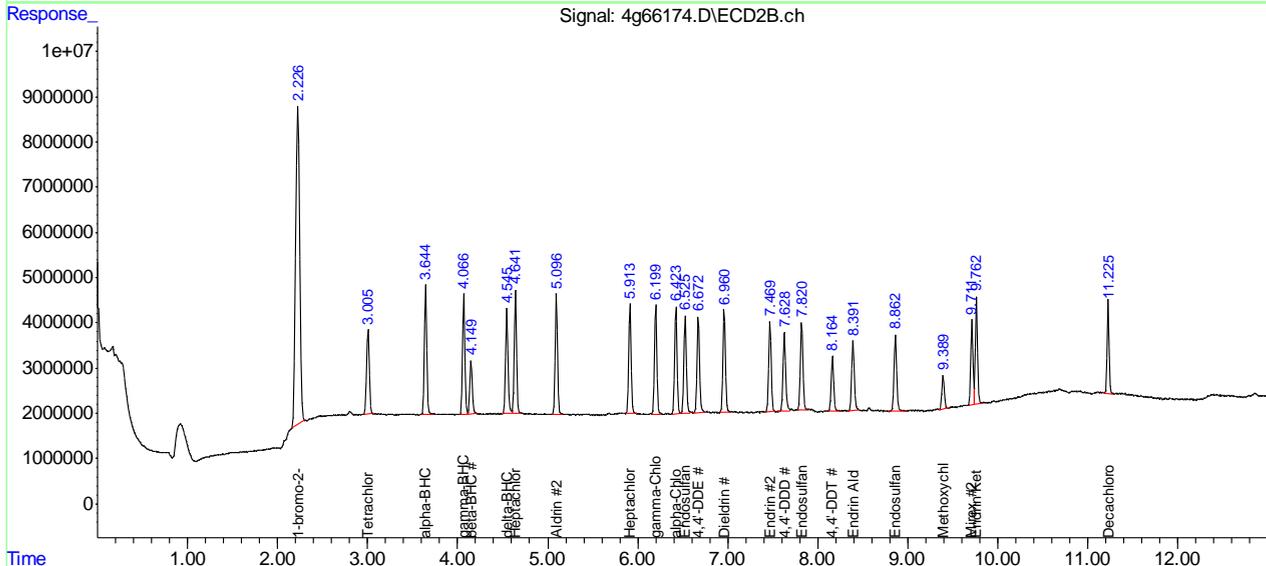
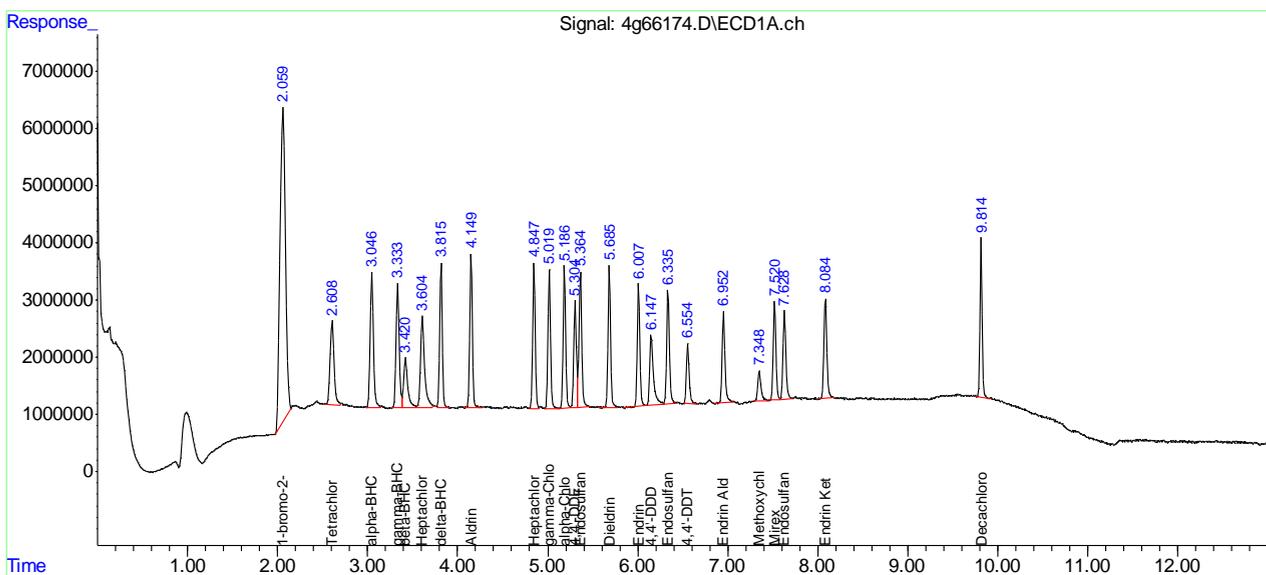
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66174.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:58 pm
 Operator : brittanp
 Sample : ic1741-10
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:12 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.4
13

Manual Integration Approval Summary

Sample Number: G4G1741-IC1741 Method: SW846 8081B
Lab FileID: 4G66174.D Analyst approved: 03/19/16 12:57 Joseph Ravino
Injection Time: 03/18/16 18:58 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

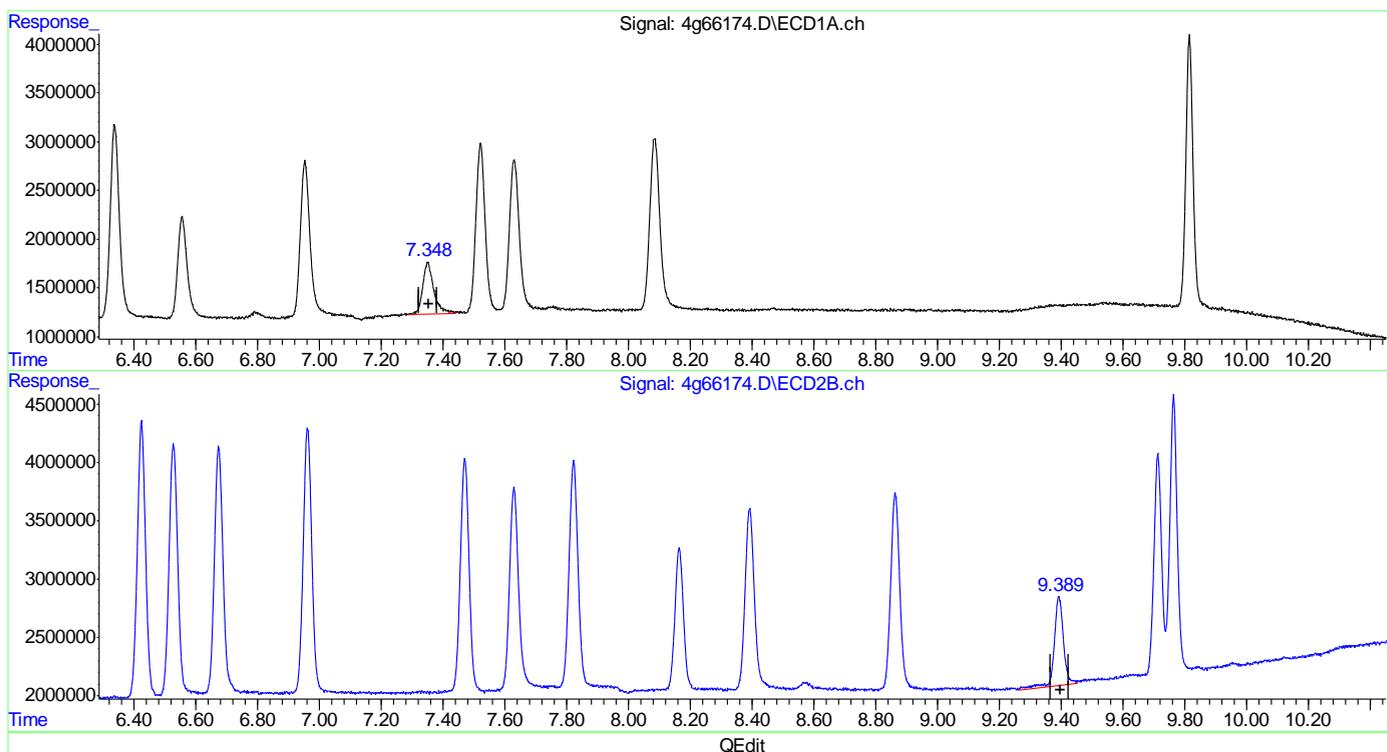
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.39	Poor instrument integration
Mirex	2385-85-5	2	9.71	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66174.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:58 pm
 Operator : brittanp
 Sample : ic1741-10
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:31:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.4.2
13

(21) Methoxychlor (A)
 7.349min 8.817 PPB
 response 12892108

(21) Methoxychlor #2 (A)
 9.391min 10.141 PPB
 response 15909681

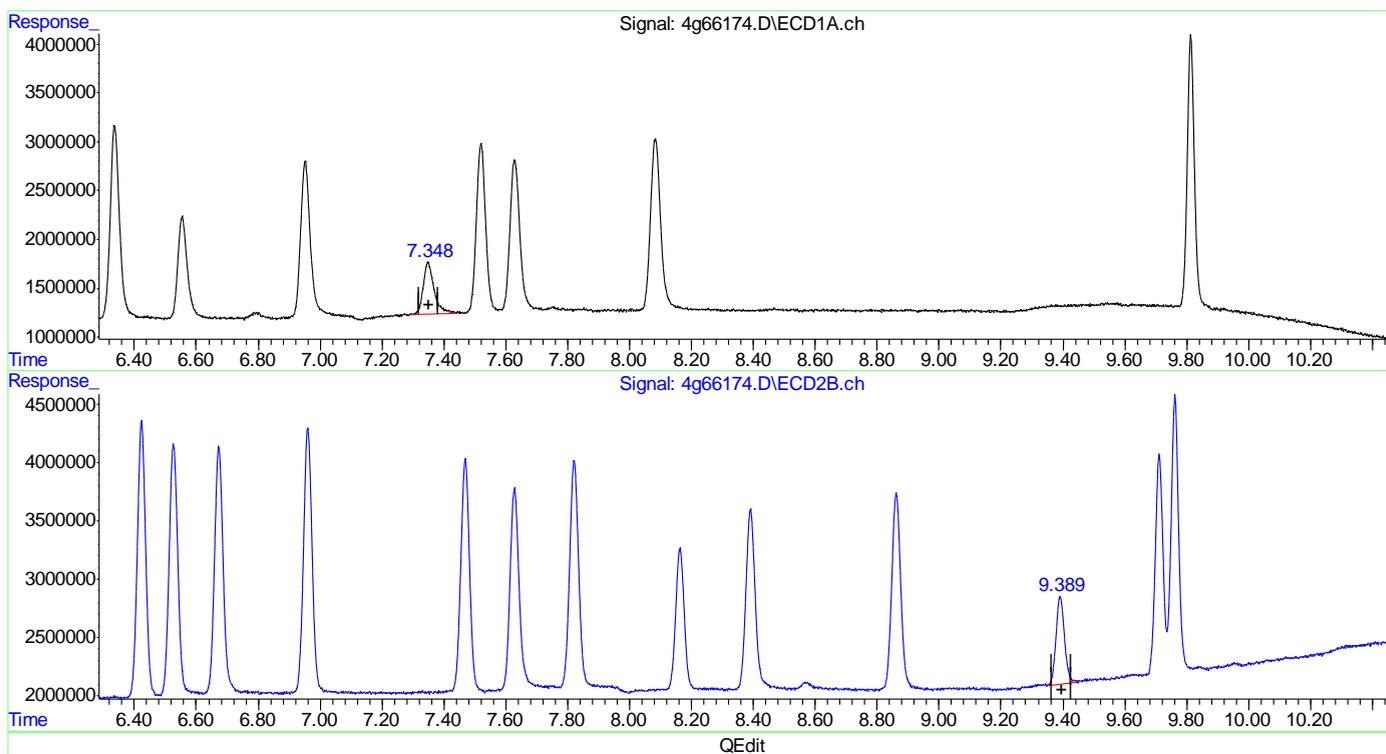
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 12:32:15 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66174.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:58 pm
 Operator : brittanp
 Sample : ic1741-10
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:31:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(21) Methoxychlor (A)

7.349min 8.817 PPB
 response 12892108

(21) Methoxychlor #2 (A)

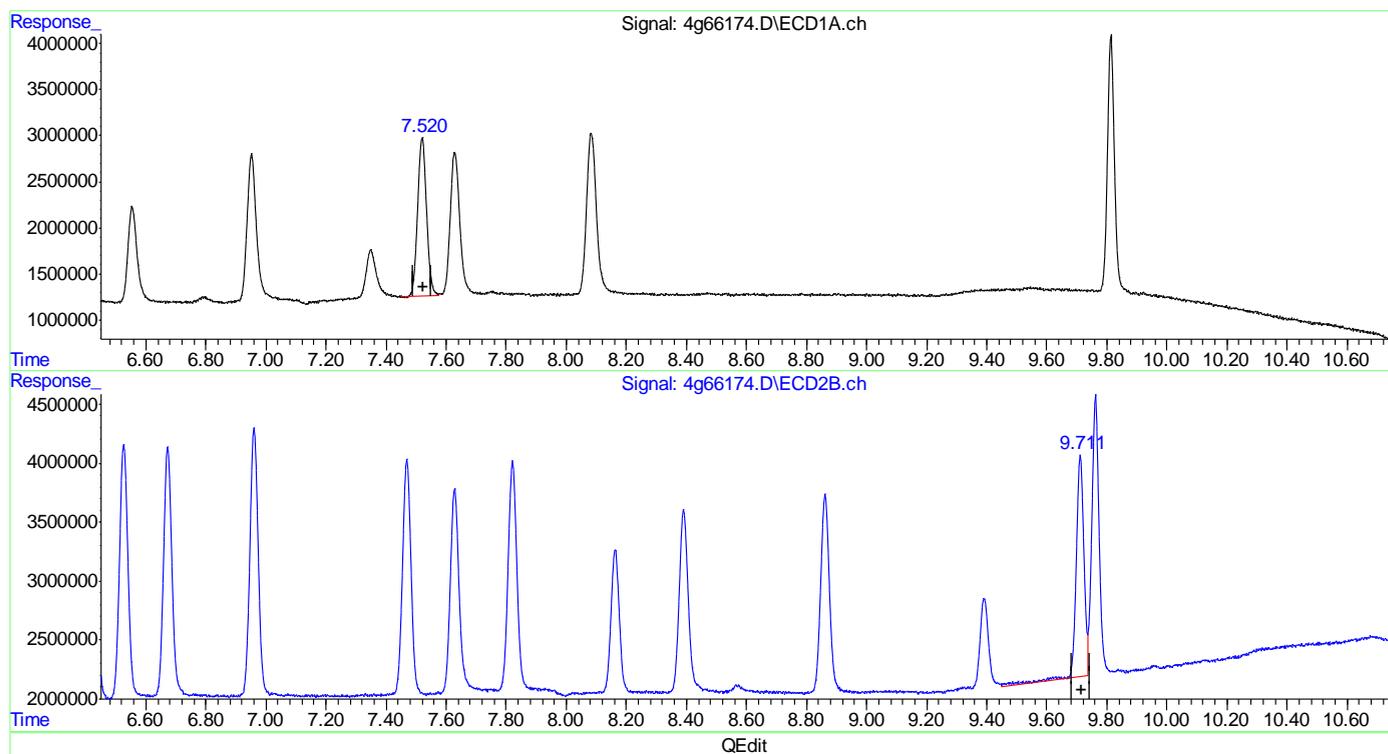
9.389min 9.050 PPB m
 response 14198930

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66174.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:58 pm
 Operator : brittanp
 Sample : ic1741-10
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:31:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(22) Mirex
 7.520min 9.820 PPB
 response 35380115

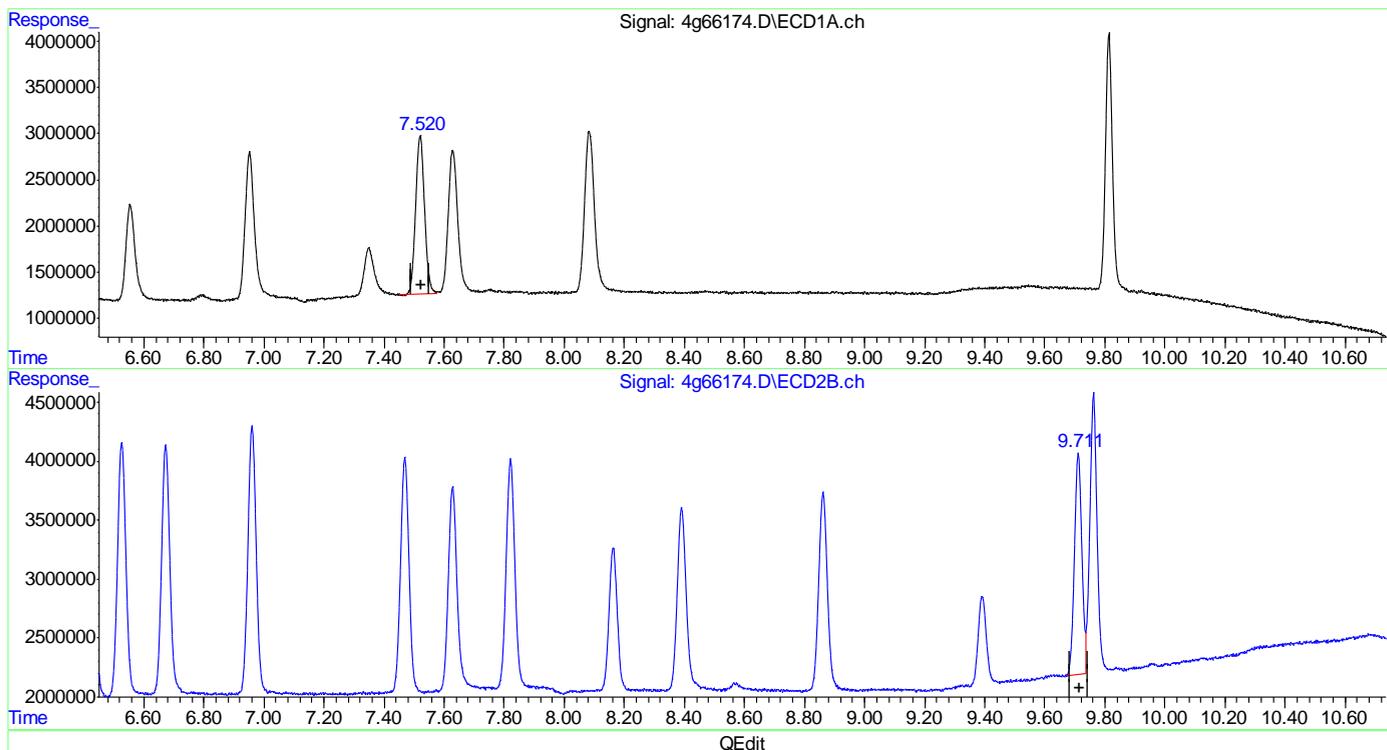
(22) Mirex #2
 9.711min 10.212 PPB
 response 33522887

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66174.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 6:58 pm
 Operator : brittanp
 Sample : ic1741-10
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:31:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.4.5
13

(22) Mirex
 7.520min 9.820 PPB
 response 35380115

(22) Mirex #2
 9.711min 9.819 PPB m
 response 32231093

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66175.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 7:13 pm
 Operator : brittanp
 Sample : icc1741-25
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:19 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.058	2.225	233.7E6	222.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.604	3.003	110.9E6	101.9E6	25.876	23.448
Spiked Amount	40.000	Range	30 - 150	Recovery	=	64.69% 58.62%
24) SA Decachlor...	9.813	11.225	113.5E6	77173938	25.487	24.600
Spiked Amount	40.000		Recovery	=	63.72%	61.50%
Target Compounds						
3) A alpha-BHC	3.045	3.644	154.4E6	138.8E6	24.816	23.769
4) MA gamma-BHC	3.333	4.067	135.8E6	124.5E6	24.885	23.786
5) MA Heptachlor	3.604	4.642	132.9E6	125.1E6	25.176	23.911
6) B beta-BHC	3.417	4.148	69503317	56424181	25.573	23.917
7) B delta-BHC	3.814	4.545	129.6E6	115.6E6	24.704	24.491
8) MB Aldrin	4.149	5.097	134.1E6	122.5E6	24.299	23.853
9) B Heptachlo...	4.848	5.913	124.3E6	112.7E6	25.149	23.991
10) B gamma-Chl...	5.017	6.199	122.5E6	113.0E6	25.273	23.698
11) B alpha-Chl...	5.185	6.423	120.4E6	111.4E6	25.036	23.946
12) A Endosulfan I	5.363	6.527	129.0E6	107.5E6	24.190	23.056
13) B 4,4'-DDE	5.303	6.673	99452342	108.3E6	24.663	24.143
14) MA Dieldrin	5.684	6.961	122.7E6	112.6E6	24.636	23.954
15) MA Endrin	6.010	7.469	108.8E6	99639368	23.621	23.647
16) A 4,4'-DDD	6.147	7.628	91212183	91236170	24.244	24.100
17) B Endosulfa...	6.336	7.820	107.1E6	98803159	24.078	24.040
18) MA 4,4'-DDT	6.554	8.162	65819433	67789895	23.426	23.160
19) B Endrin Al...	6.951	8.391	91028841	82465888	25.864	25.928
20) B Endosulfa...	7.628	8.861	90817715	86297421	25.023	23.822
21) A Methoxychlor	7.347	9.391	35461879	40832550	24.226	26.178
22) Mirex	7.520	9.711	87550705	76916059	24.276	23.569
23) B Endrin Ke...	8.082	9.762	107.7E6	103.9E6	25.828	25.659

SemiQuant Compounds - Not Calibrated on this Instrument

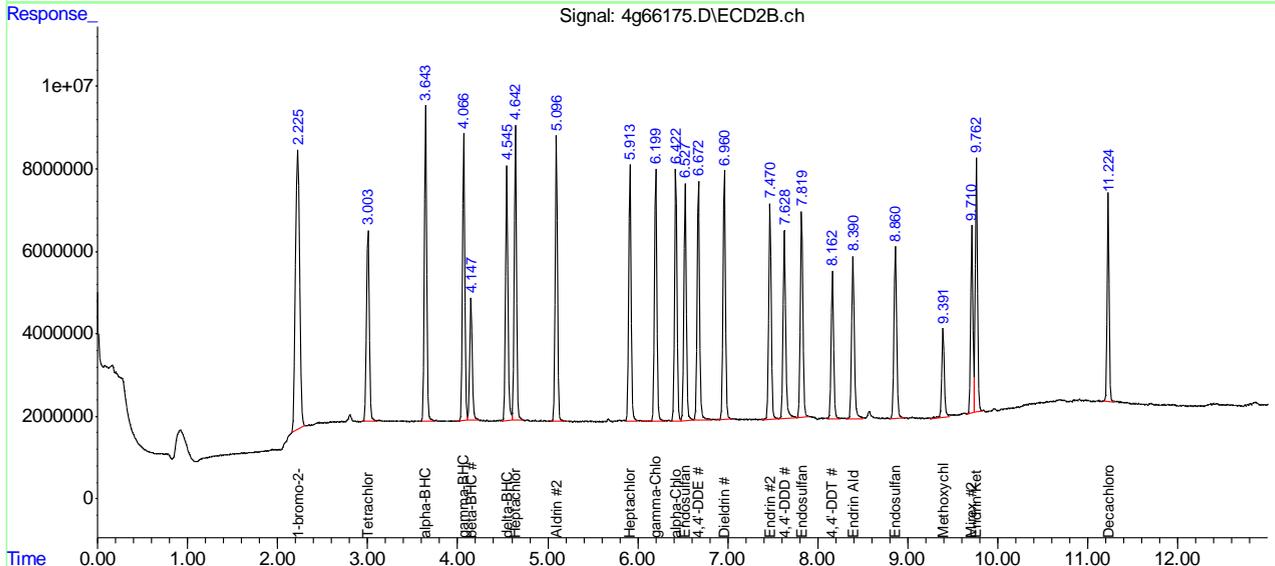
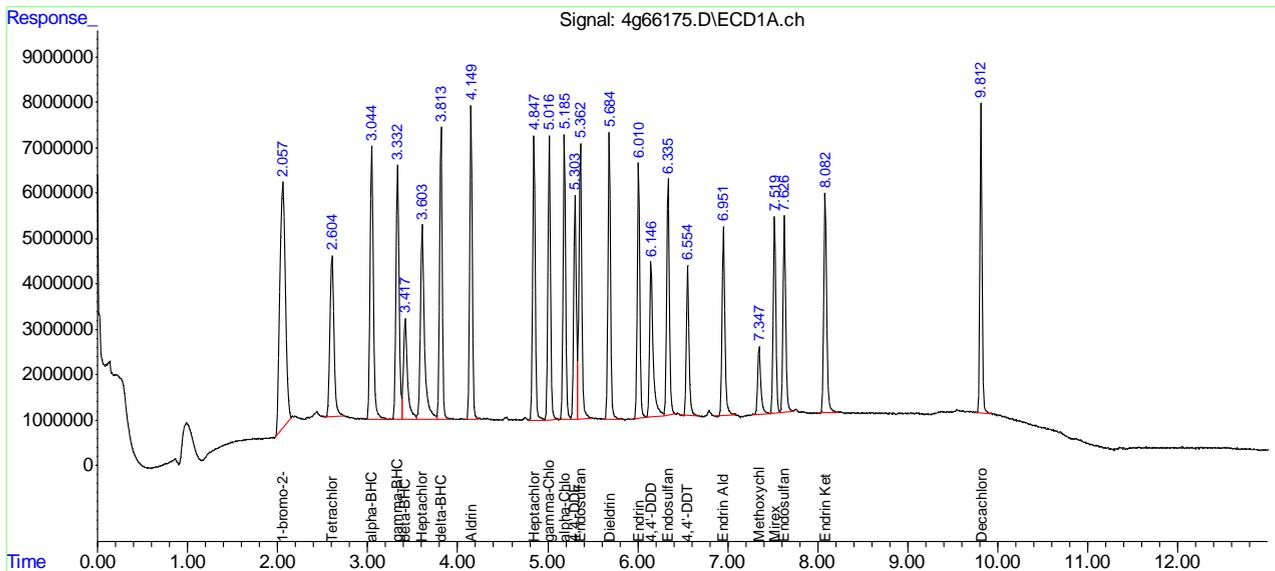
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66175.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 7:13 pm
 Operator : brittanp
 Sample : iccl741-25
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:19 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.5
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66176.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 7:28 pm
 Operator : brittanp
 Sample : ic1741-50
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:29 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.063	2.227	227.1E6	214.8E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.607	3.005	231.2E6	207.7E6	55.539	49.427
Spiked Amount	40.000 Range	30 - 150	Recovery	=	138.85%	123.57%
24) SA Decachlor...	9.813	11.225	228.3E6	153.9E6	52.755	50.719
Spiked Amount	40.000		Recovery	=	131.89%	126.80%
Target Compounds						
3) A alpha-BHC	3.047	3.645	323.8E6	297.4E6	53.581	52.661
4) MA gamma-BHC	3.333	4.067	284.4E6	265.7E6	53.640	52.464
5) MA Heptachlor	3.605	4.642	277.6E6	262.4E6	54.146	51.850
6) B beta-BHC	3.416	4.148	138.9E6	118.3E6	52.591	51.837
7) B delta-BHC	3.816	4.545	270.3E6	245.9E6	53.053	53.872
8) MB Aldrin	4.151	5.097	280.9E6	256.2E6	52.374	51.600
9) B Heptachlo...	4.849	5.914	256.3E6	233.4E6	53.353	51.382
10) B gamma-Chl...	5.018	6.200	255.2E6	233.7E6	54.190	50.684
11) B alpha-Chl...	5.187	6.423	248.8E6	226.2E6	53.282	50.255
12) A Endosulfan I	5.364	6.526	266.8E6	218.8E6	51.487	48.521
13) B 4,4'-DDE	5.303	6.673	212.3E6	224.0E6	54.190	51.645
14) MA Dieldrin	5.685	6.961	259.1E6	235.2E6	53.547	51.757
15) MA Endrin	6.010	7.469	230.2E6	207.0E6	51.419	50.798
16) A 4,4'-DDD	6.145	7.628	192.4E6	192.5E6	52.649	52.571
17) B Endosulfa...	6.335	7.821	225.7E6	211.6E6	52.226	53.240
18) MA 4,4'-DDT	6.553	8.162	152.5E6	151.3E6	50.598	49.360
19) B Endrin Al...	6.950	8.391	194.7E6	165.1E6	56.942	53.683
20) B Endosulfa...	7.627	8.861	192.1E6	174.0E6	54.472	49.656
21) A Methoxychlor	7.344	9.391	78589411	83602916	55.265	55.425
22) Mirex	7.519	9.711	179.3E6	151.5E6	51.176	47.994
23) B Endrin Ke...	8.081	9.761	228.7E6	221.3E6	56.467	56.517

SemiQuant Compounds - Not Calibrated on this Instrument

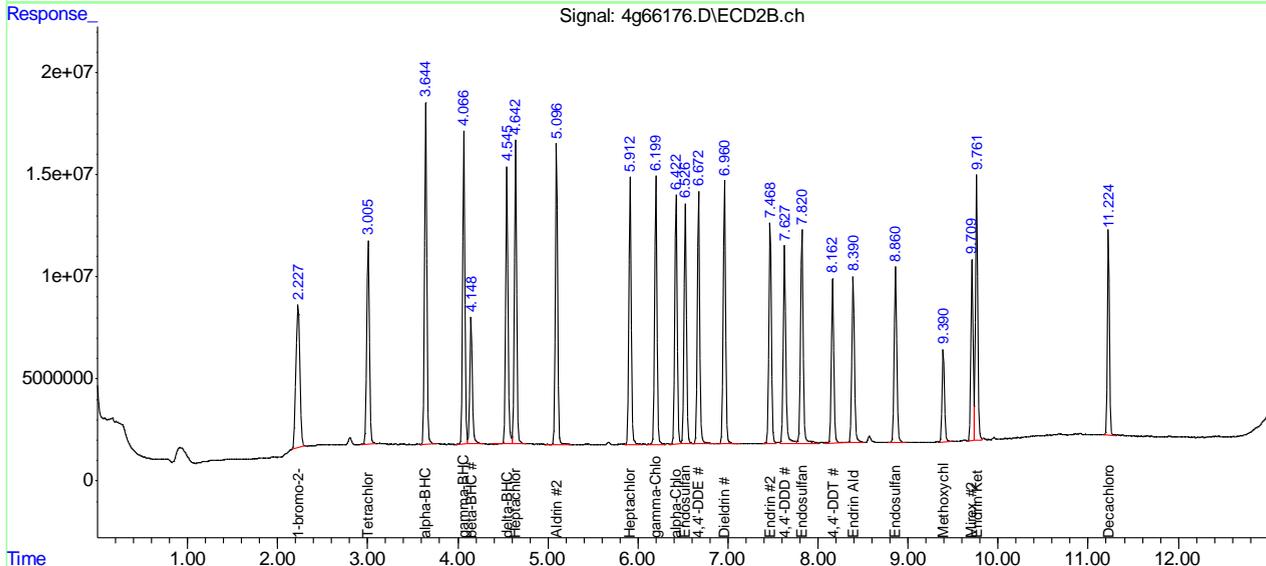
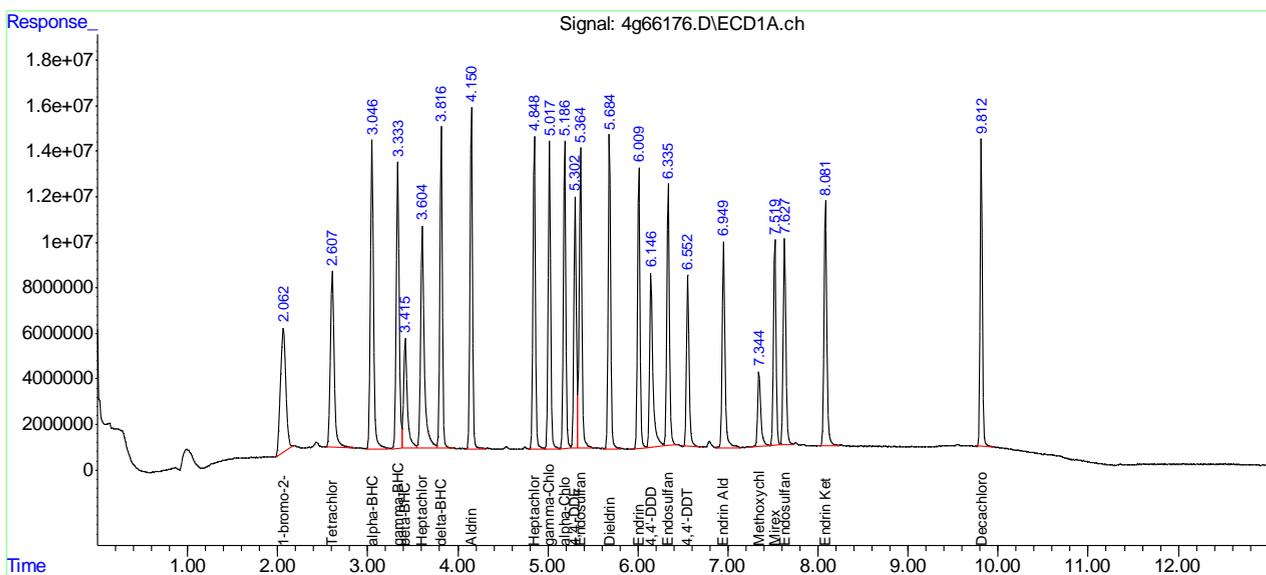
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66176.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 7:28 pm
 Operator : brittanp
 Sample : ic1741-50
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:29 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.6
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66178.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 7:57 pm
 Operator : brittanp
 Sample : ic1741-100
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:40 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.062	2.225	231.8E6	218.2E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.606	3.004	472.4E6	431.5E6	111.160	101.091
Spiked Amount	40.000	Range	30 - 150	Recovery	= 277.90%#	252.73%#
24) SA Decachlor...	9.812	11.225	463.1E6	306.5E6	104.833	99.475
Spiked Amount	40.000		Recovery	= 262.08%	248.69%	
Target Compounds						
3) A alpha-BHC	3.047	3.644	680.9E6	638.0E6	110.345	111.235
4) MA gamma-BHC	3.333	4.067	598.0E6	566.6E6	110.488	110.158
5) MA Heptachlor	3.602	4.642	589.3E6	553.0E6	112.584	107.596
6) B beta-BHC	3.414	4.147	279.5E6	244.8E6	103.686	105.633
7) B delta-BHC	3.816	4.544	571.0E6	530.8E6	109.786	114.494
8) MB Aldrin	4.150	5.096	586.3E6	542.7E6	107.078	107.610
9) B Heptachlo...	4.849	5.914	529.6E6	485.2E6	108.013	105.155
10) B gamma-Chl...	5.018	6.199	536.8E6	490.4E6	111.640	104.728
11) B alpha-Chl...	5.187	6.423	520.1E6	474.6E6	109.095	103.830
12) A Endosulfan I	5.364	6.526	554.9E6	454.8E6	104.887	99.289
13) B 4,4'-DDE	5.302	6.672	457.1E6	471.8E6	114.286	107.070
14) MA Dieldrin	5.684	6.960	552.7E6	496.5E6	111.905	107.558
15) MA Endrin	6.009	7.469	485.3E6	430.7E6	106.181	104.075
16) A 4,4'-DDD	6.142	7.627	411.3E6	399.5E6	110.220	107.436
17) B Endosulfa...	6.335	7.820	479.3E6	434.7E6	108.654	107.678
18) MA 4,4'-DDT	6.552	8.162	353.0E6	331.0E6	100.844	95.501
19) B Endrin Al...	6.949	8.389	405.6E6	338.3E6	116.205	108.287
20) B Endosulfa...	7.627	8.861	422.8E6	356.4E6	117.467	100.178
21) A Methoxychlor	7.344	9.391	172.5E6	177.0E6	118.854	115.515
22) Mirex	7.519	9.711	387.5E6	310.1E6	108.329	96.737
23) B Endrin Ke...	8.080	9.761	483.8E6	470.4E6	117.024	118.273

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

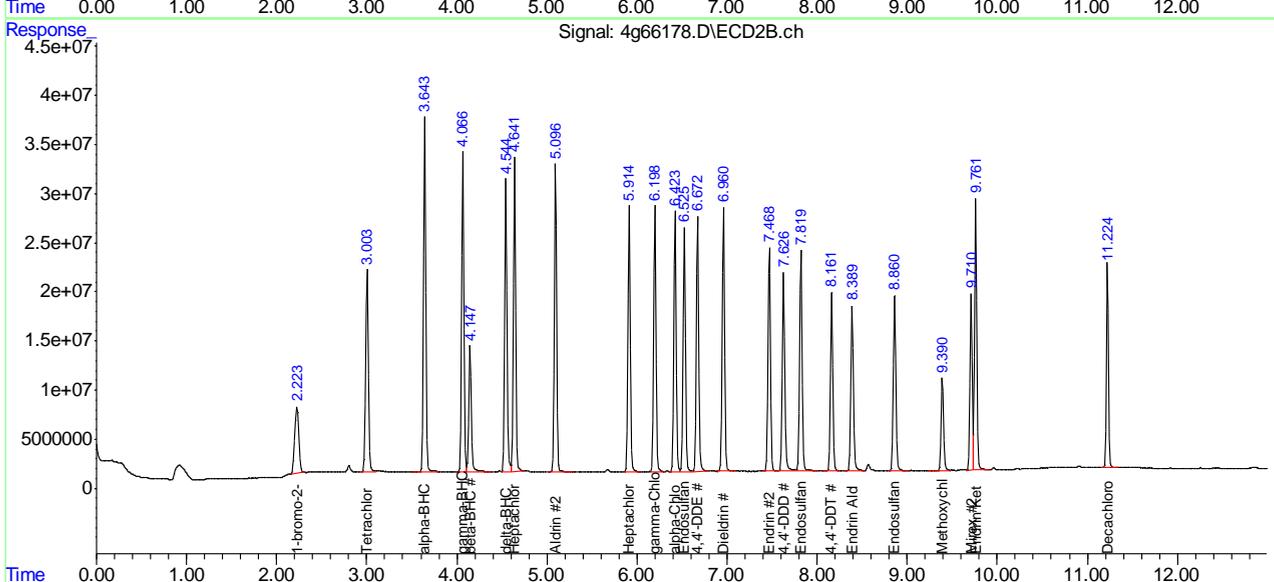
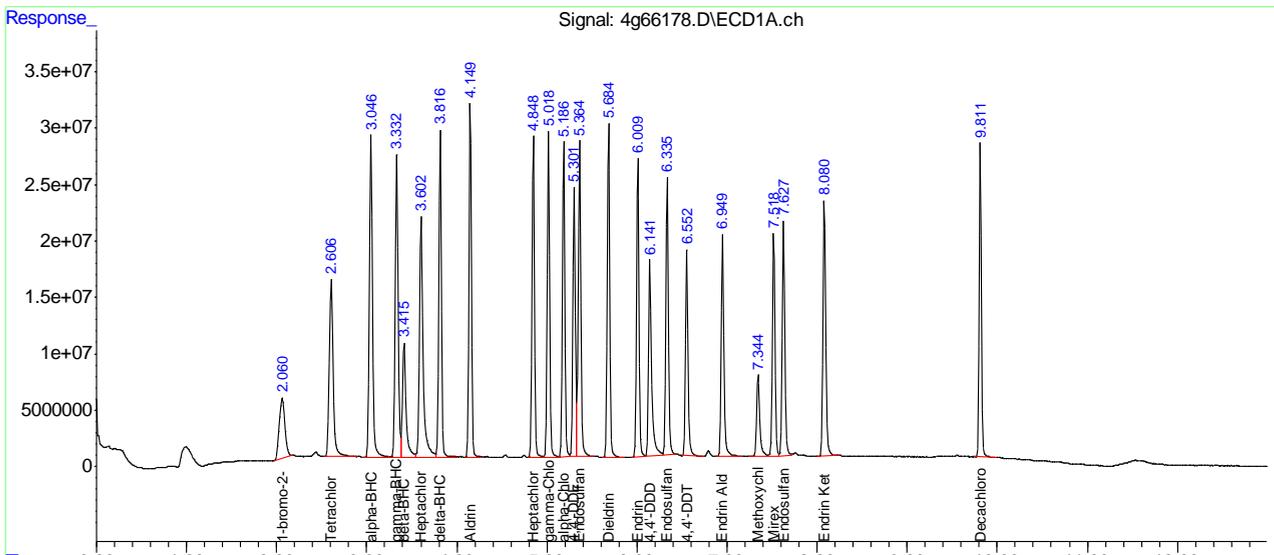
13.67
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66178.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 7:57 pm
 Operator : brittanp
 Sample : ic1741-100
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:40 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.67
13

Manual Integrations
APPROVED
 (compounds with "m" flag)

Gwendolyn Burns
 03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66179.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:12 pm
 Operator : brittanp
 Sample : ic1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:30:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:26:36 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
31) I 1-bromo-2...	2.062	2.226	245.0E6	219.9E6	50.000	50.000
System Monitoring Compounds						
Target Compounds						
32) Chlordane...	3.725	4.445	91808233	85139410	482.173	501.277
33) Chlordane...	4.286	5.281	118.2E6	94010602	480.637	524.421
34) Chlordane...	5.019	6.199	385.3E6	342.6E6	479.112	499.410
35) Chlordane...	5.179	6.424	609.0E6	560.0E6	478.896	500.243m
36) Chlordane...	6.250	7.900	85563726	83327919	480.461	524.869

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

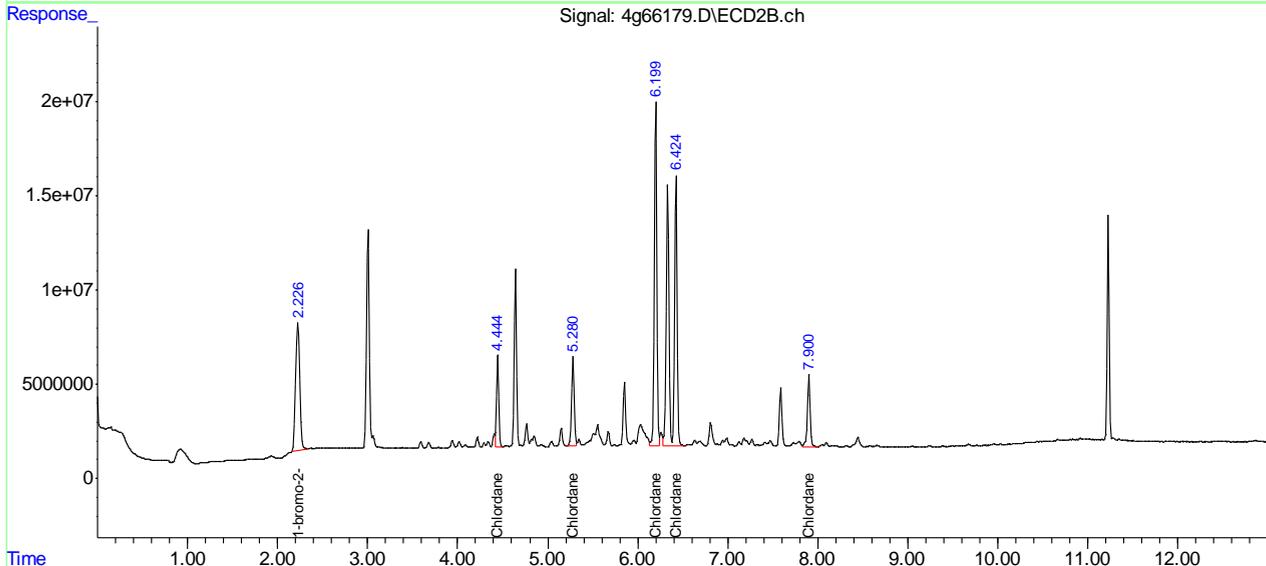
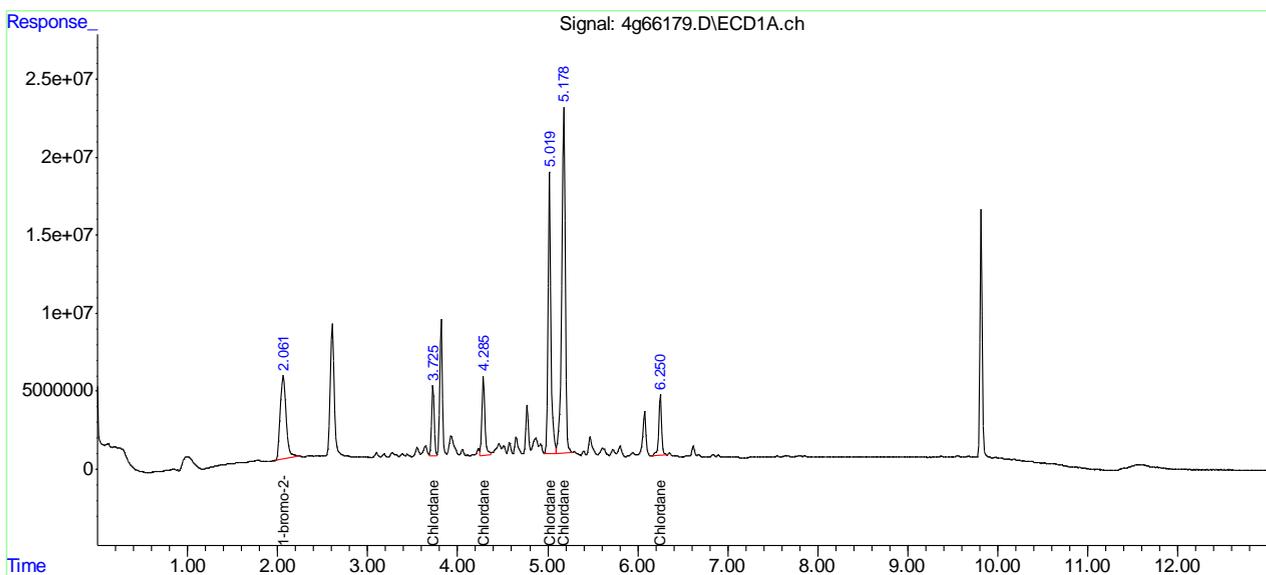
13.68
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66179.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:12 pm
 Operator : brittanp
 Sample : ic1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:30:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:26:36 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.8
13

Manual Integration Approval Summary

Sample Number: G4G1741-IC1741 Method: SW846 8081B
Lab FileID: 4G66179.D Analyst approved: 03/19/16 13:30 Joseph Ravino
Injection Time: 03/18/16 20:12 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.42	Split peak

13.6.8.1

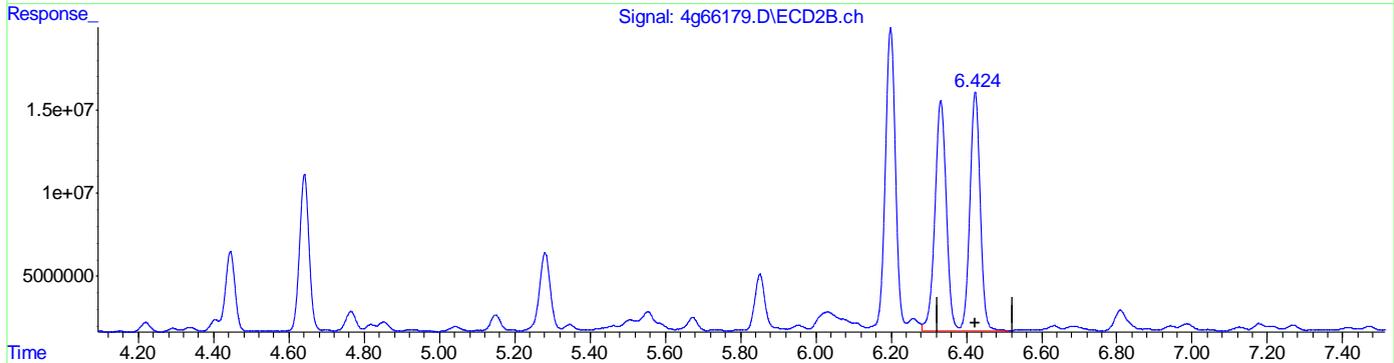
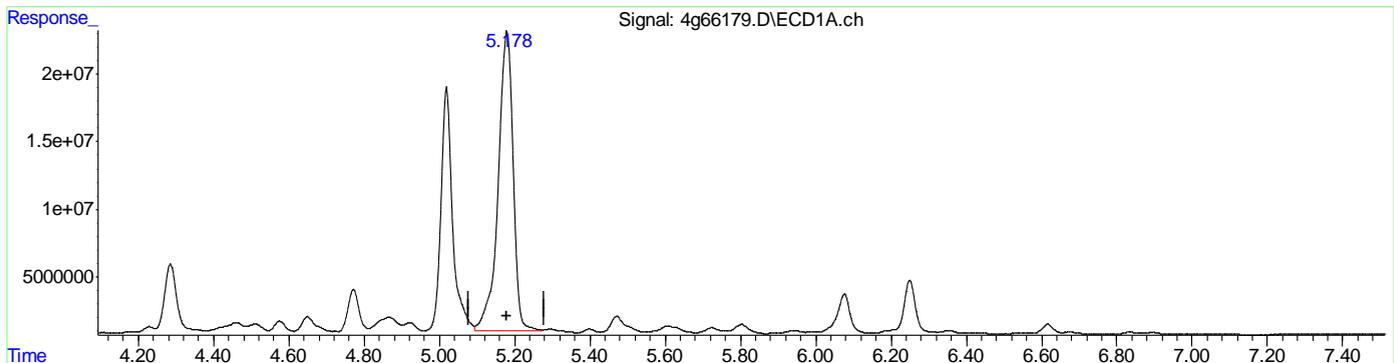
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66179.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:12 pm
 Operator : brittanp
 Sample : ic1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:27:51 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:26:36 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(35) Chlordane {D}
 5.179min 478.896 PPB
 response 608972749

(35) Chlordane {D} #2
 6.424min 500.243 PPB m
 response 559993024

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 13:28:58 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66180.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:26 pm
 Operator : brittanp
 Sample : ic1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
25) I 1-bromo-2...	2.067	2.226	226.8E6	213.9E6	50.000	50.000
System Monitoring Compounds						
Target Compounds						
26) L8 Toxaphene{A}	6.060	6.923	93301966	43383357	725.511	837.548
27) L8 Toxaphene{B}	6.322	7.789	91657902	52971809	624.055	590.614
28) L8 Toxaphene{C}	6.491	7.953	78597418	90888659	623.342	609.474
29) L8 Toxaphene{D}	6.839	8.387	73237911	53530428	632.910	581.742
30) L8 Toxaphene{E}	7.497	9.301	57198385	41874410	689.913	543.060

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

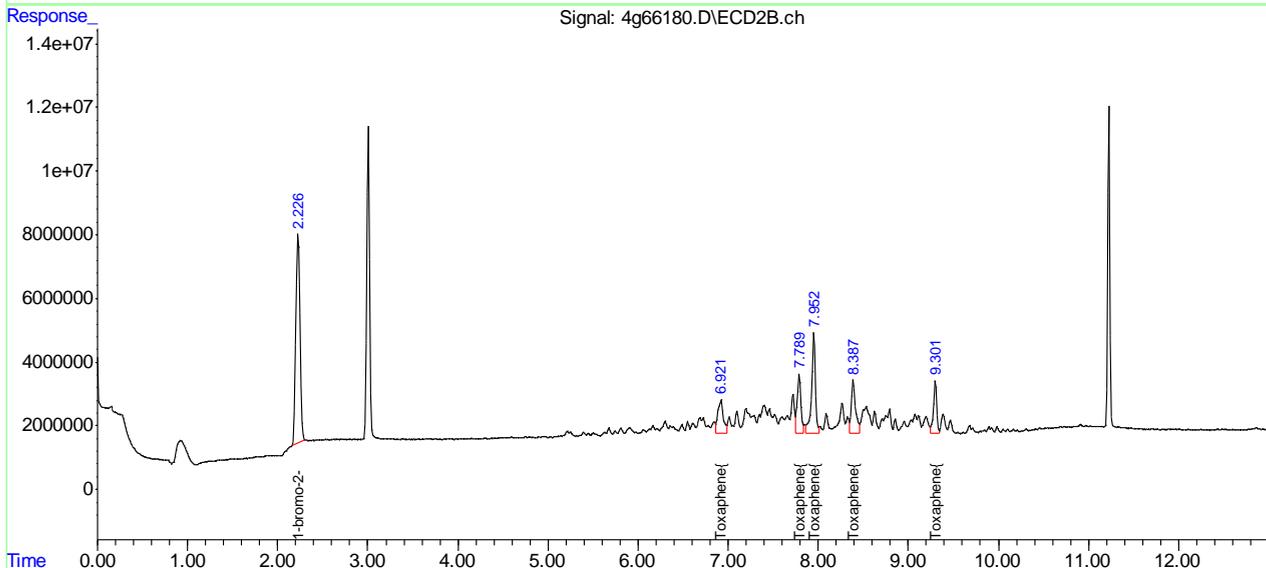
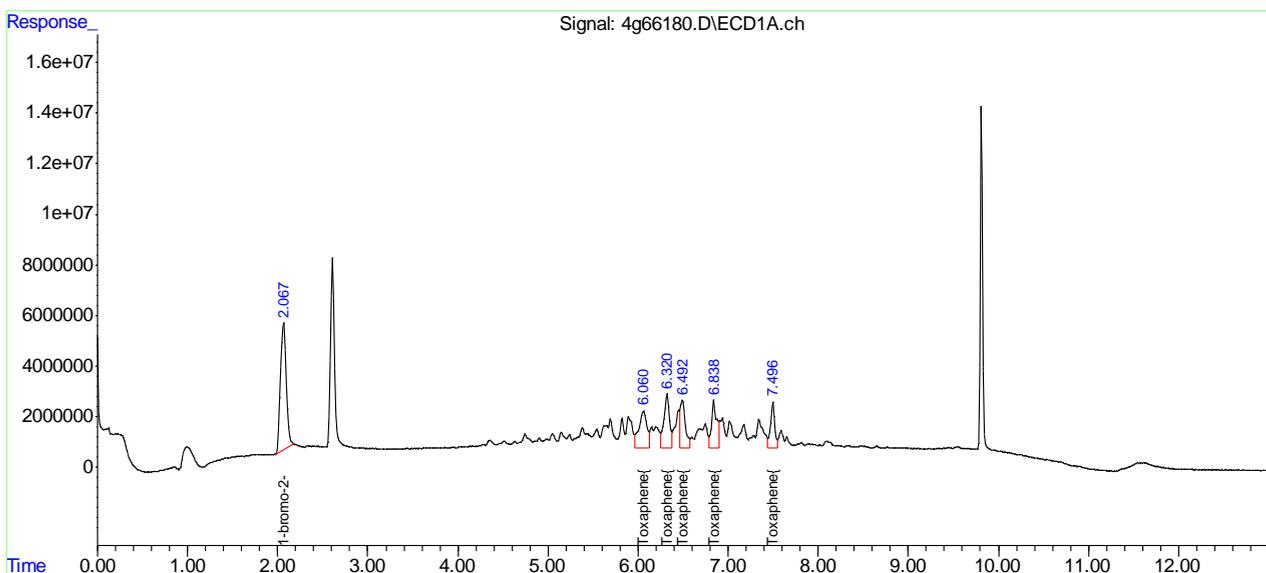
13.6.9
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66180.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:26 pm
 Operator : brittanp
 Sample : ic1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 12:58:56 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Fri Mar 18 06:17:02 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.9
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66181.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:41 pm
 Operator : brittanp
 Sample : icv1741-25
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:03:26 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.056	2.220	219.2E6	208.8E6	50.000	50.000
25) I 1-bromo-2...	2.056	2.220	219.2E6	208.8E6	50.000	50.000
31) I 1-bromo-2...	2.056	2.220	219.2E6	208.8E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.602	3.001	111.8E6	100.2E6	26.088	25.246
Spiked Amount	40.000	Range 30 - 150	Recovery =	65.22%	63.12%	
24) SA Decachlor...	9.814	11.225	119.5E6	80563242	27.224	27.443
Spiked Amount	40.000		Recovery =	68.06%	68.61%	
Target Compounds						
3) A alpha-BHC	3.044	3.642	150.2E6	136.6E6	26.138	25.954
4) MA gamma-BHC	3.331	4.065	133.0E6	123.6E6	25.773	26.191
5) MA Heptachlor	3.608	4.641	136.2E6	124.9E6	27.237	26.224
6) B beta-BHC	3.419	4.147	68230709	56390581	26.095	26.750
7) B delta-BHC	3.813	4.544	129.3E6	118.5E6	26.148	26.954
8) MB Aldrin	4.148	5.096	134.0E6	120.8E6	26.315	25.521
9) B Heptachlo...	4.847	5.913	122.8E6	113.7E6	25.909	26.692
10) B gamma-Chl...	5.017	6.199	124.2E6	114.6E6	26.631	26.374
11) B alpha-Chl...	5.186	6.423	119.0E6	110.7E6	25.863	26.056
12) A Endosulfan I	5.364	6.526	130.9E6	103.3E6	27.359	24.780
13) B 4,4'-DDE	5.308	6.674	91200919	107.1E6	23.621	26.346
14) MA Dieldrin	5.684	6.960	122.2E6	112.9E6	26.035	26.827
15) MA Endrin	6.010	7.469	110.4E6	101.7E6	26.801	26.709
16) A 4,4'-DDD	6.154	7.629	92355028	93768525	27.579	25.789
17) B Endosulfa...	6.337	7.821	111.3E6	104.8E6	27.543	27.465
18) MA 4,4'-DDT	6.557	8.162	66647122	66155056	25.515	24.682
19) B Endrin Al...	6.953	8.390	90867126	84010987	26.906	25.914
20) B Endosulfa...	7.630	8.861	92148566	85395780	27.487	26.122
21) A Methoxychlor	7.353	9.393	32807488	37691234	25.099	26.336
23) B Endrin Ke...	8.084	9.762	107.3E6	104.3E6	27.379	27.577

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

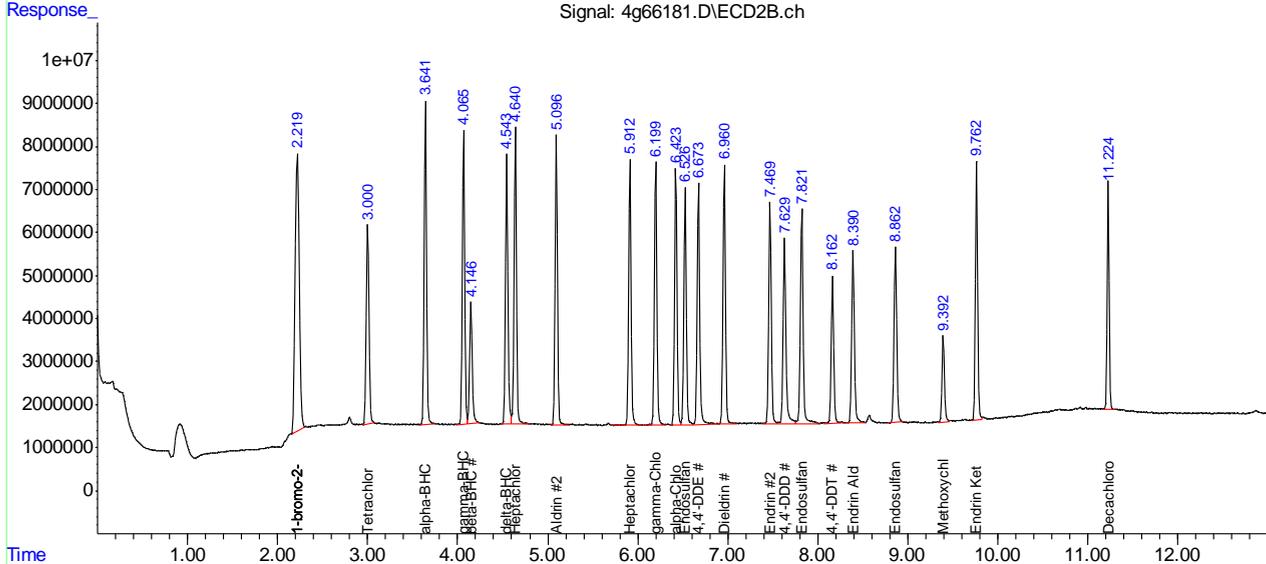
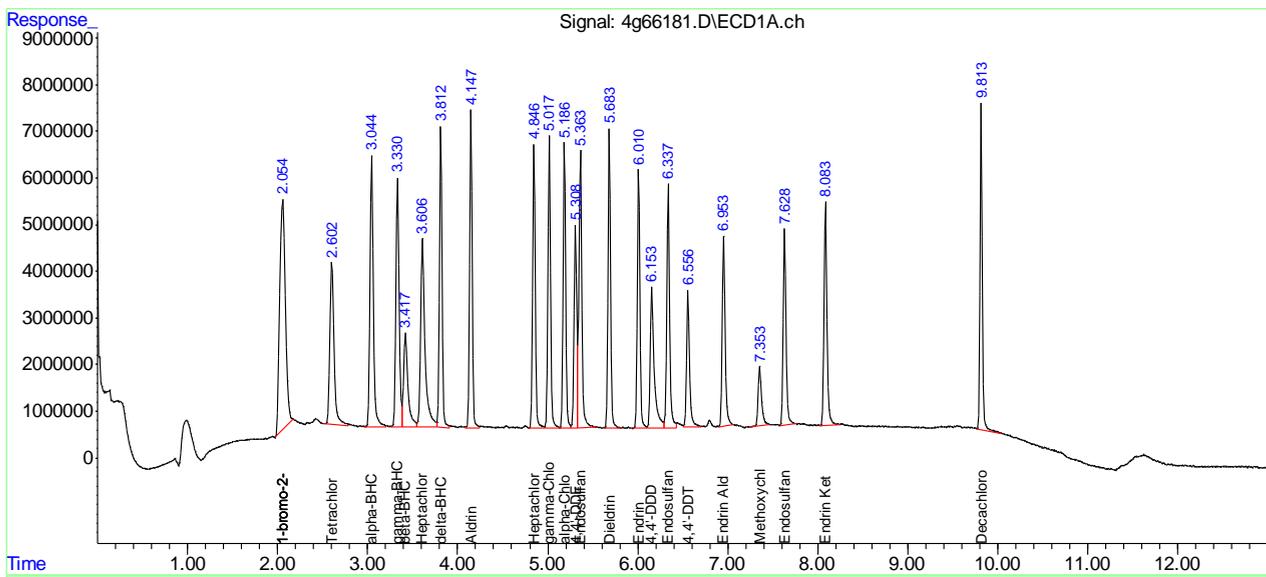
13.6.10 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66181.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:41 pm
 Operator : brittanp
 Sample : icv1741-25
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:03:26 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.10
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66182.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:56 pm
 Operator : brittanp
 Sample : icv1741-25
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:04:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	2.065	2.229	213.6E6	199.2E6	50.000	50.000
25)	I 1-bromo-2...	2.065	2.229	213.6E6	199.2E6	50.000	50.000
31)	I 1-bromo-2...	2.065	2.229	213.6E6	199.2E6	50.000	50.000

System Monitoring Compounds

Target Compounds

22)	Mirex	7.520	9.711	93620427	84884832	28.158	29.944
-----	-------	-------	-------	----------	----------	--------	--------

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

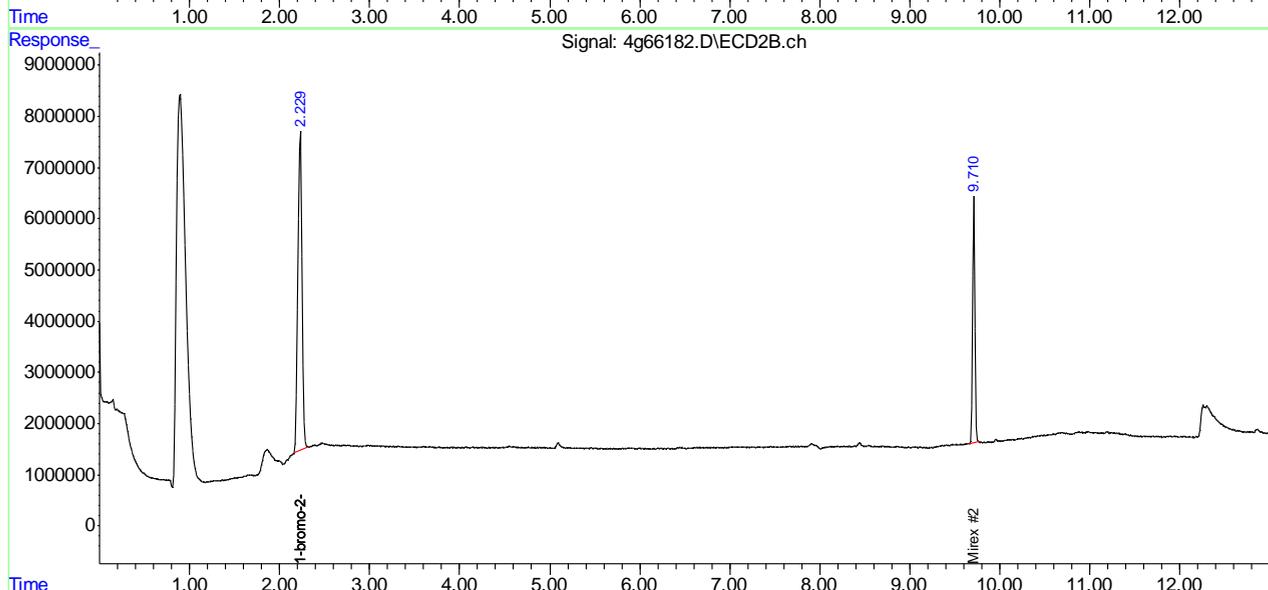
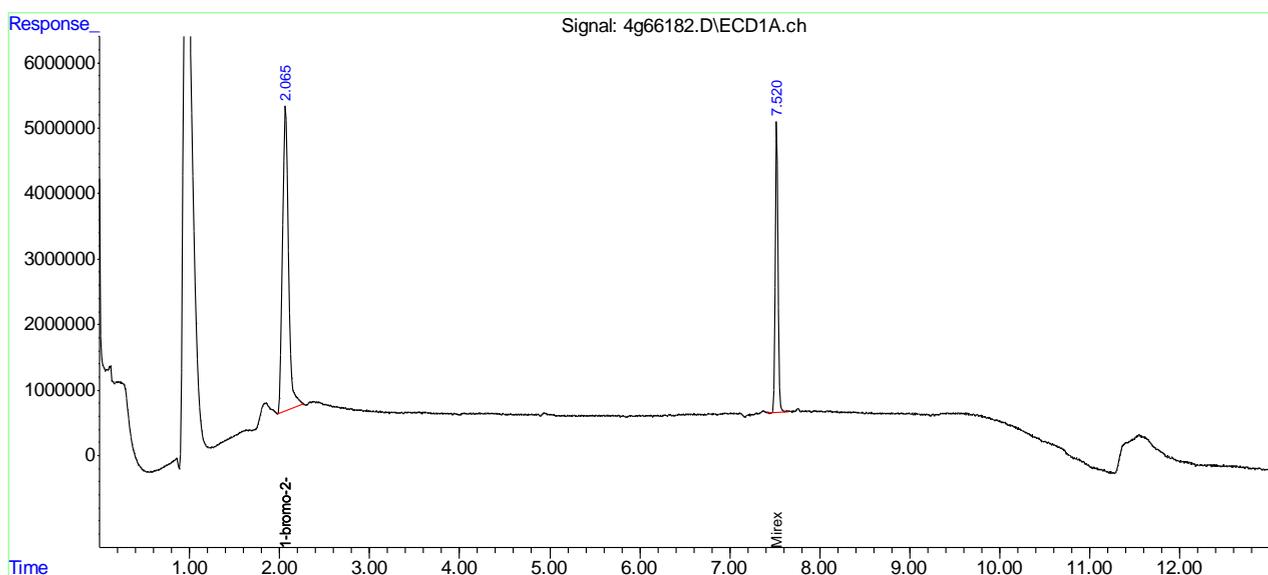
13.6.11
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66182.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 8:56 pm
 Operator : brittanp
 Sample : icv1741-25
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:04:48 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66183.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:10 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:34:29 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.055	2.219	235.7E6	231.3E6	50.000	50.000
25) I 1-bromo-2...	2.055	2.219	235.7E6	231.3E6	50.000	50.000
31) I 1-bromo-2...	2.055	2.219	235.7E6	231.3E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.602	3.001	204.0E6	198.4E6	44.278	45.137
Spiked Amount	40.000	Range 30 - 150	Recovery =	110.69%	112.84%	
24) SA Decachlor...	9.812	11.225	224.7E6	152.3E6	47.627m	46.850m
Spiked Amount	40.000		Recovery =	119.07%	117.13%	
Target Compounds						
32) Chlordane...	3.722	4.444	96390358	88740031	545.650	495.616
33) Chlordane...	4.284	5.280	112.4E6	90261407	494.069	456.543
34) Chlordane...	5.017	6.198	336.7E6	291.5E6	454.132	404.645
35) Chlordane...	5.177	6.422	539.9E6	484.6E6	460.723	411.518m
36) Chlordane...	6.249	7.900	74972061	74838977	455.378	427.065

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

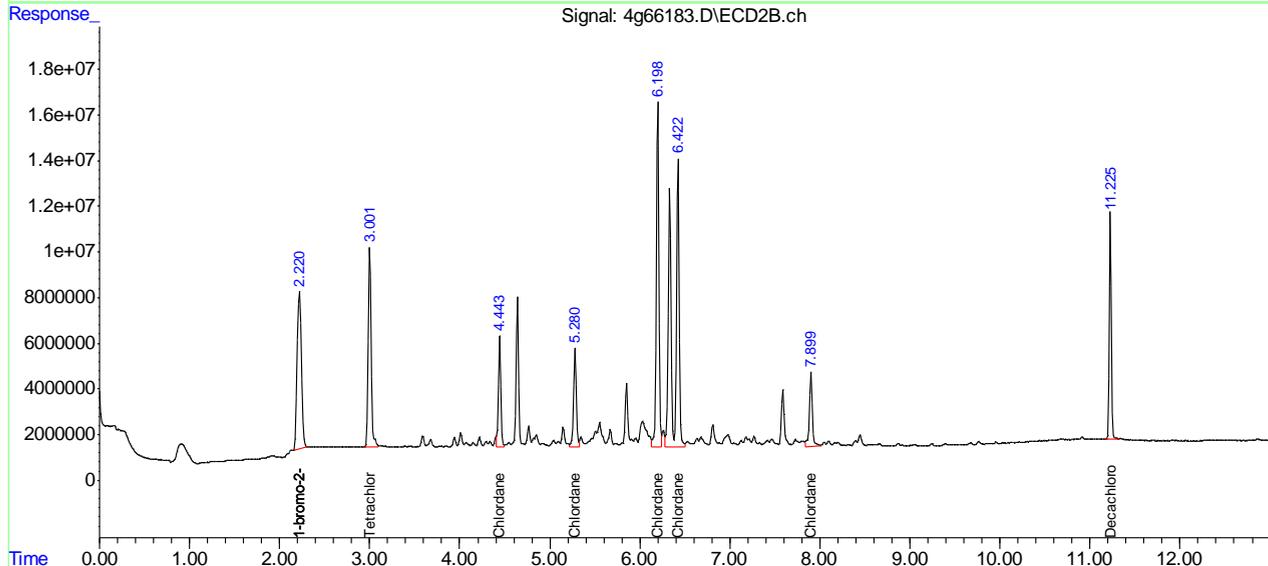
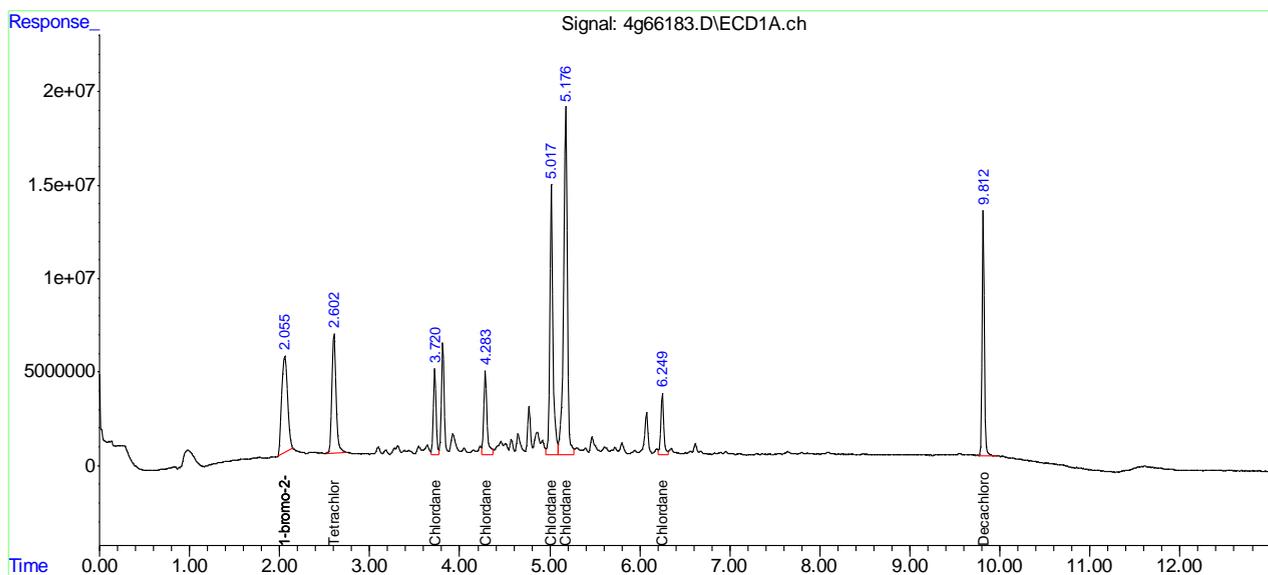
13.6.12
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66183.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:10 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:34:29 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integration Approval Summary

Sample Number: G4G1741-ICV1741 Method: SW846 8081B
Lab FileID: 4G66183.D Analyst approved: 03/19/16 13:36 Joseph Ravino
Injection Time: 03/18/16 21:10 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.42	Split peak
Decachlorobiphenyl	2051-24-3	1	9.81	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	11.22	Poor instrument integration

13.6.12.1

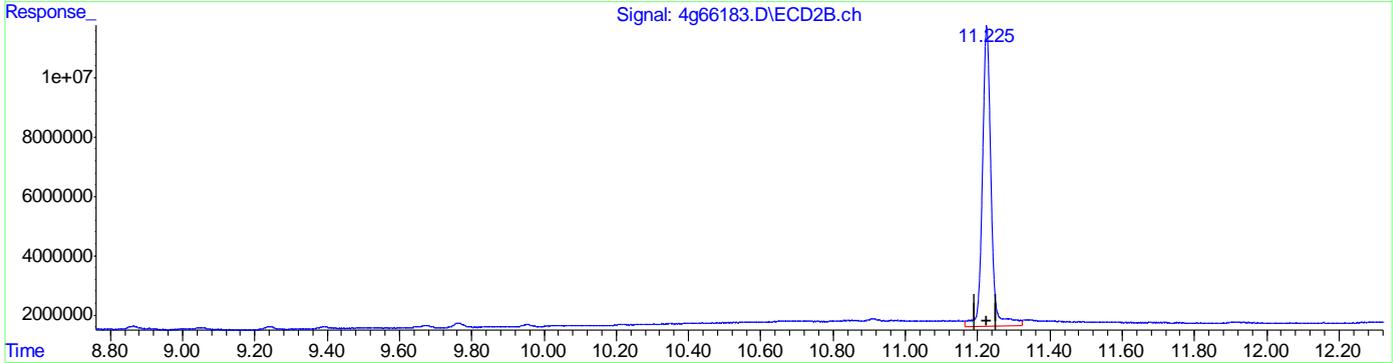
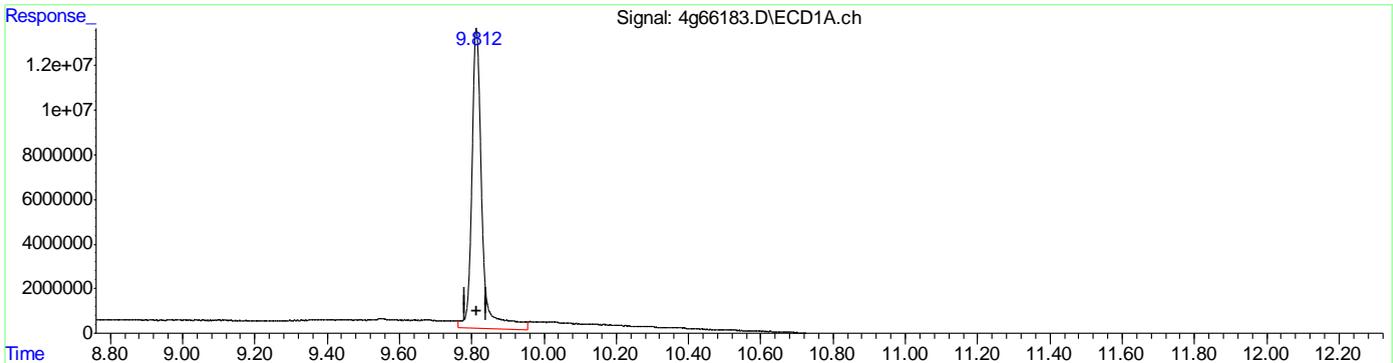
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66183.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:10 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:33:34 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)
 9.813min 55.906 PPB
 response 263806195

(24) Decachlorobiphenyl #2 (SA)
 11.225min 52.118 PPB
 response 169426903

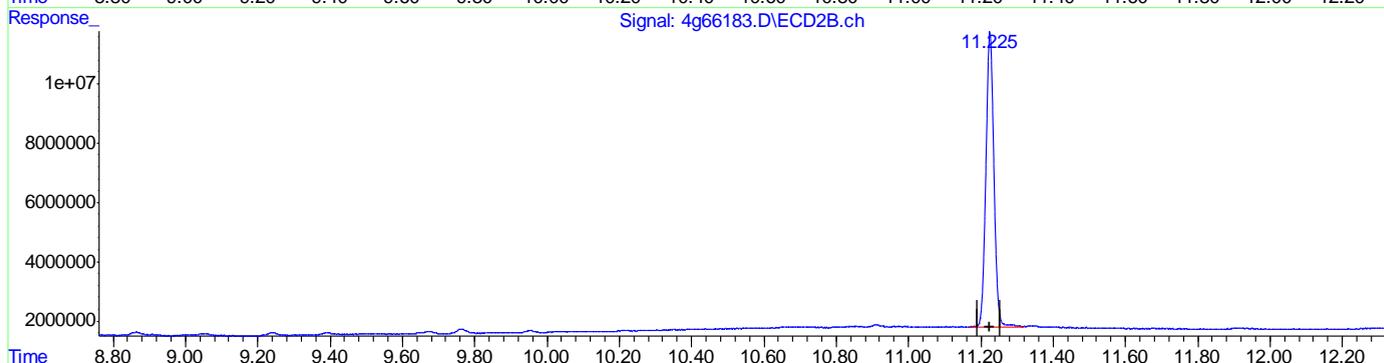
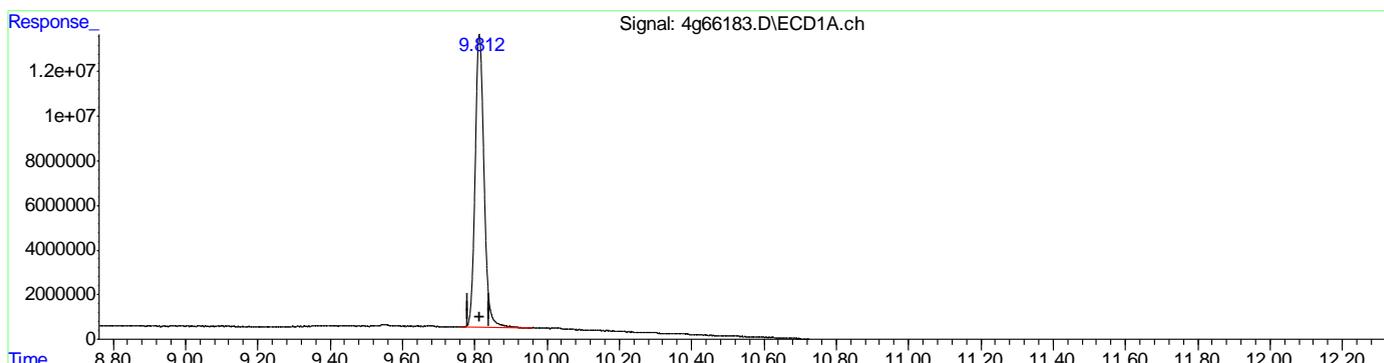
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 13:33:59 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66183.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:10 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:33:34 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)
 9.812min 47.627 PPB m
 response 224737502

(24) Decachlorobiphenyl #2 (SA)
 11.225min 46.850 PPB m
 response 152302493

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 13:34:07 2016 RPT1

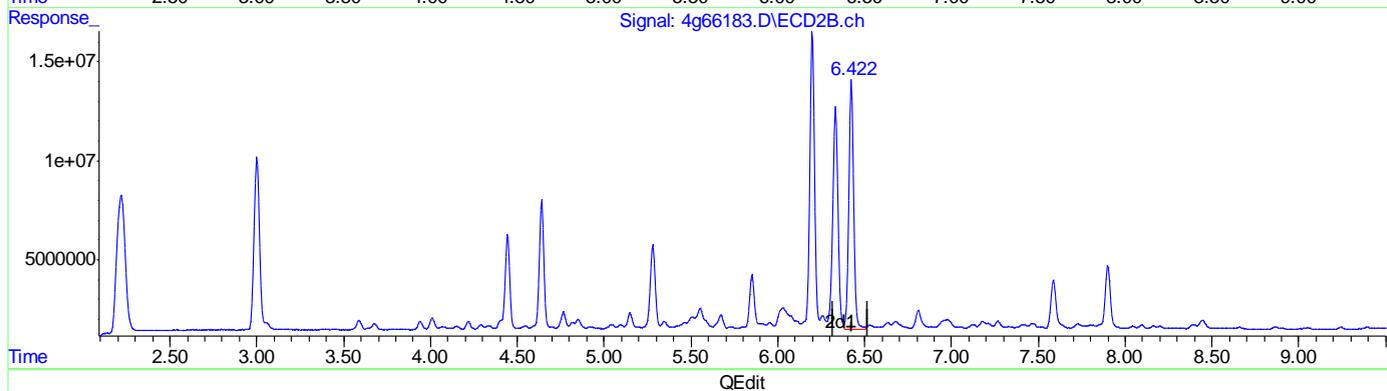
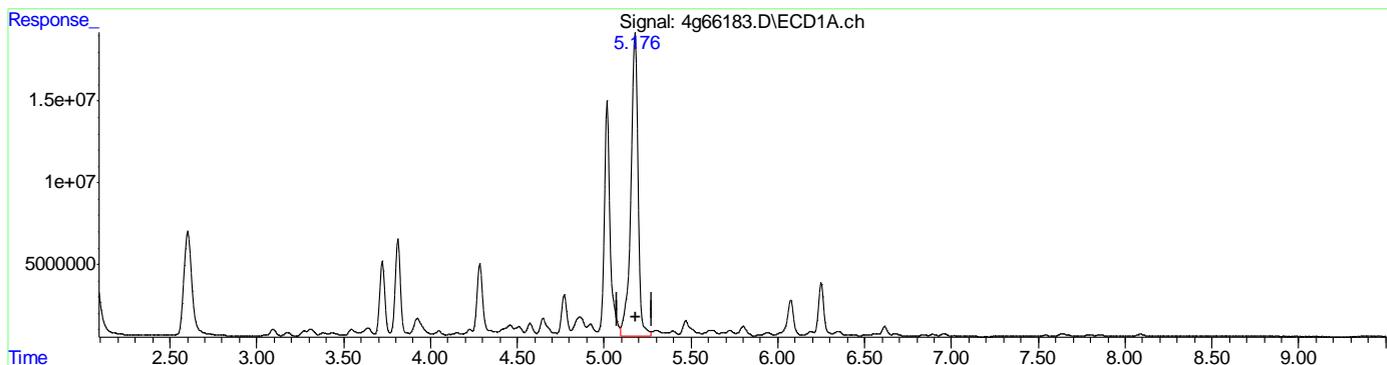
13.6.12.3
 13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66183.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:10 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:33:34 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(35) Chlordane {D}
 5.177min 460.723 PPB
 response 539853128

(35) Chlordane {D} #2
 6.423min 207.156 PPB
 response 243962358

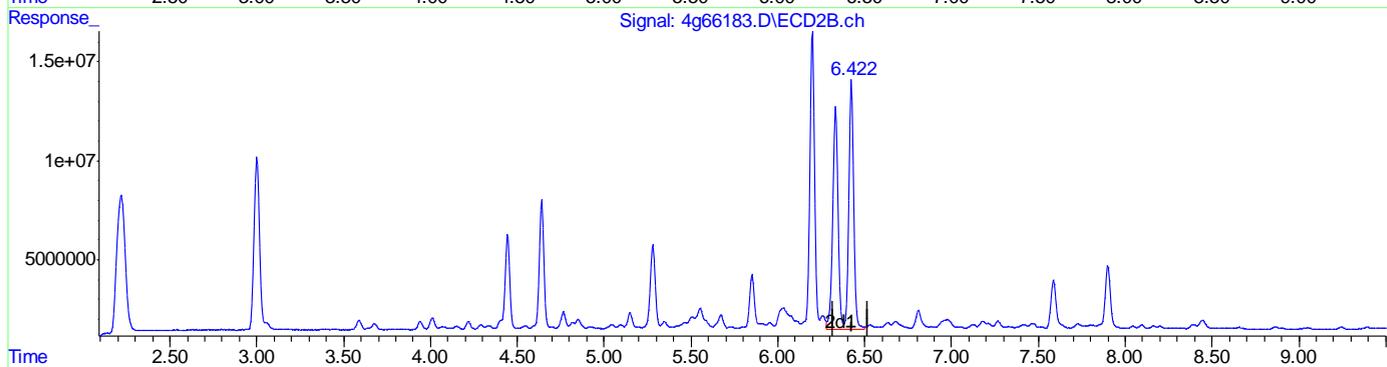
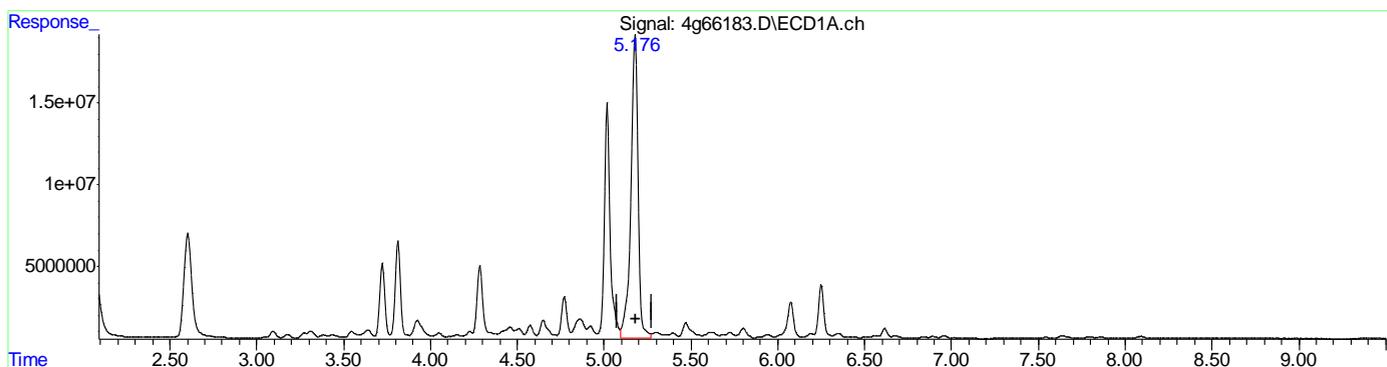
(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 13:34:17 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66183.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:10 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:33:34 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(35) Chlordane {D}
 5.177min 460.723 PPB
 response 539853128

(35) Chlordane {D} #2
 6.422min 411.518 PPB m
 response 484634618

(+) = Expected Retention Time
 4PST1741.M Sat Mar 19 13:34:34 2016 RPT1

13.6.125
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66184.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:25 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:12:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.063	2.226	246.6E6	229.3E6	50.000	50.000
25) I 1-bromo-2...	2.063	2.226	246.6E6	229.3E6	50.000	50.000
31) I 1-bromo-2...	2.063	2.226	246.6E6	229.3E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.608	3.004	201.8E6	184.0E6	41.866	42.231
Spiked Amount	40.000	Range 30 - 150	Recovery =	104.67%	105.58%	
24) SA Decachlor...	9.814	11.226	218.9E6	144.4E6	44.341	44.803
Spiked Amount	40.000		Recovery =	110.85%	112.01%	
Target Compounds						
26) L8 Toxaphene{A}	6.054	6.923	94396674	50661286	465.240	544.714m
27) L8 Toxaphene{B}	6.324	7.789	94442996	60107149	473.817	529.294
28) L8 Toxaphene{C}	6.488	7.953	79861097	93299693	467.238	478.835
29) L8 Toxaphene{D}	6.839	8.387	77978693	56869598	489.610	495.559
30) L8 Toxaphene{E}	7.497	9.299	57067933	42733928	458.795	476.036

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

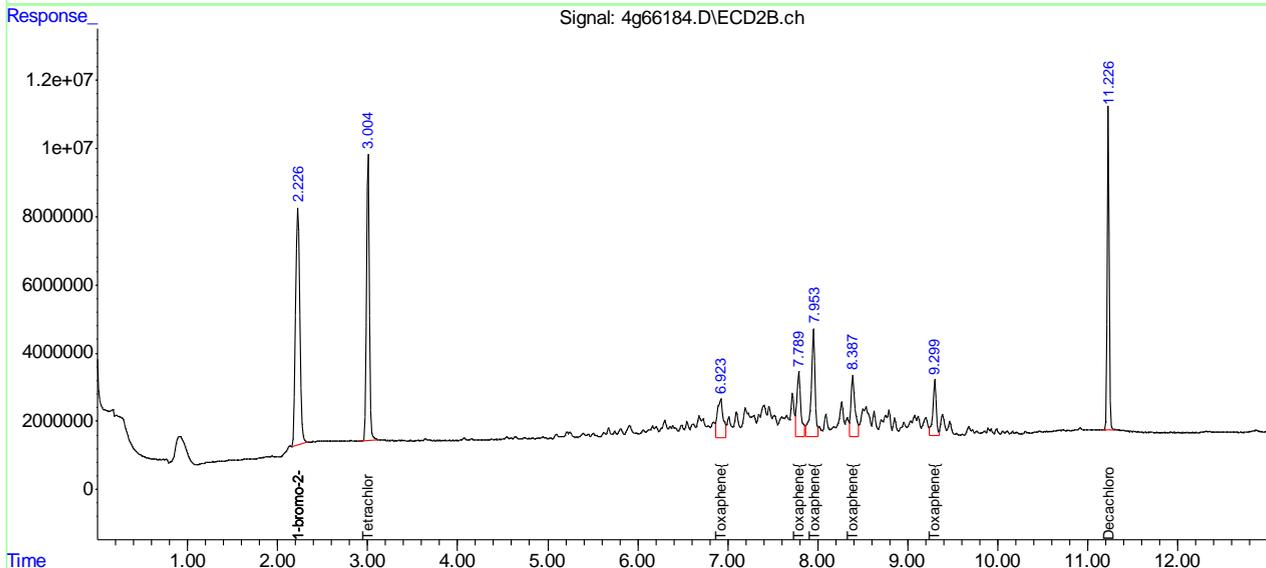
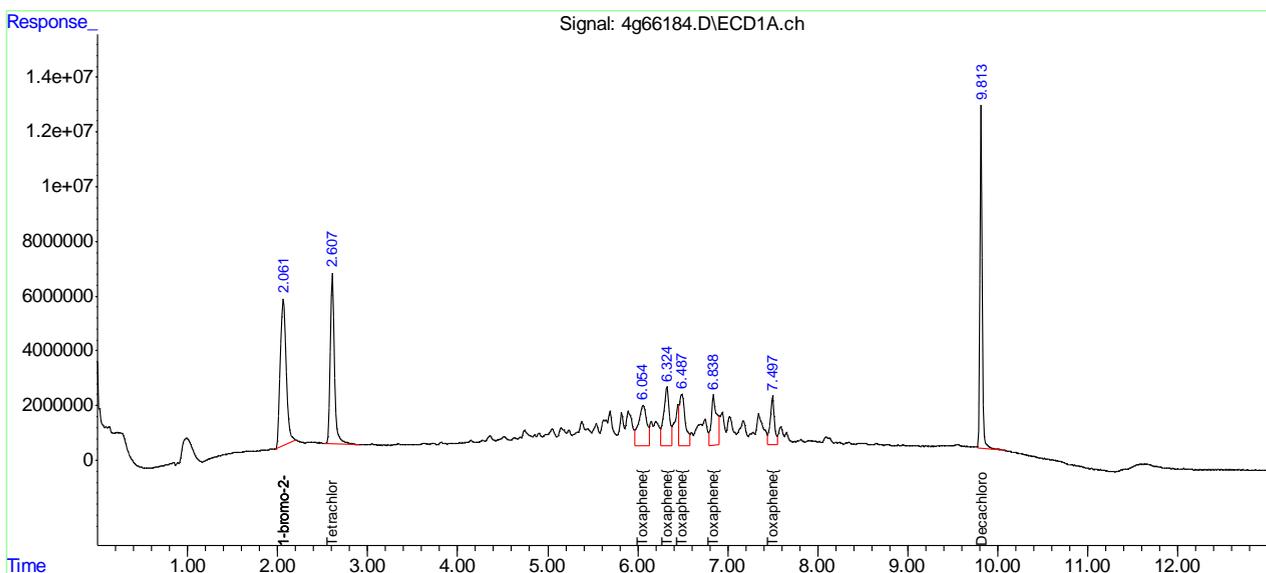
13.6.13
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66184.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:25 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:12:14 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.13 13

Manual Integration Approval Summary

Sample Number: G4G1741-ICV1741 Method: SW846 8081B
Lab FileID: 4G66184.D Analyst approved: 03/19/16 13:17 Joseph Ravino
Injection Time: 03/18/16 21:25 Supervisor approved: 03/21/16 13:03 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		2	6.92	Split peak

13.6.13.1

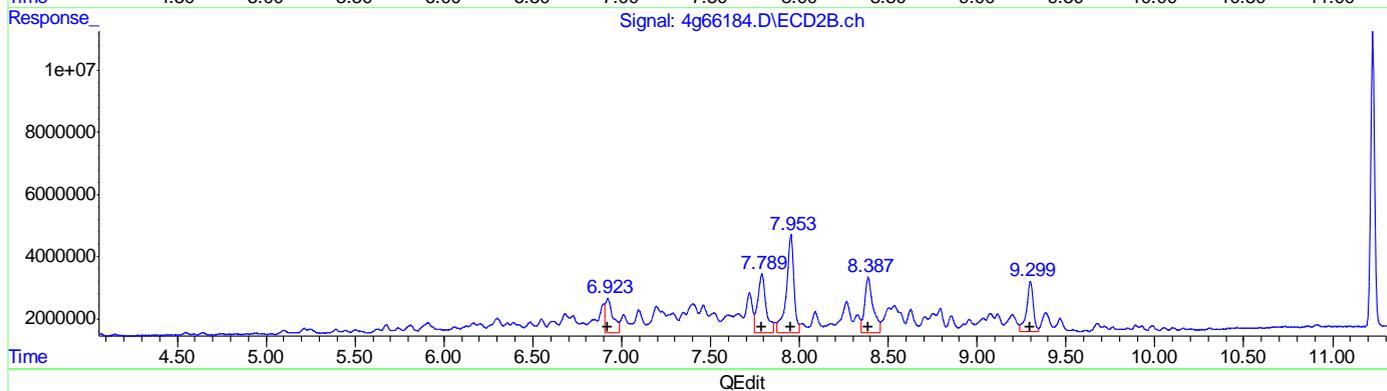
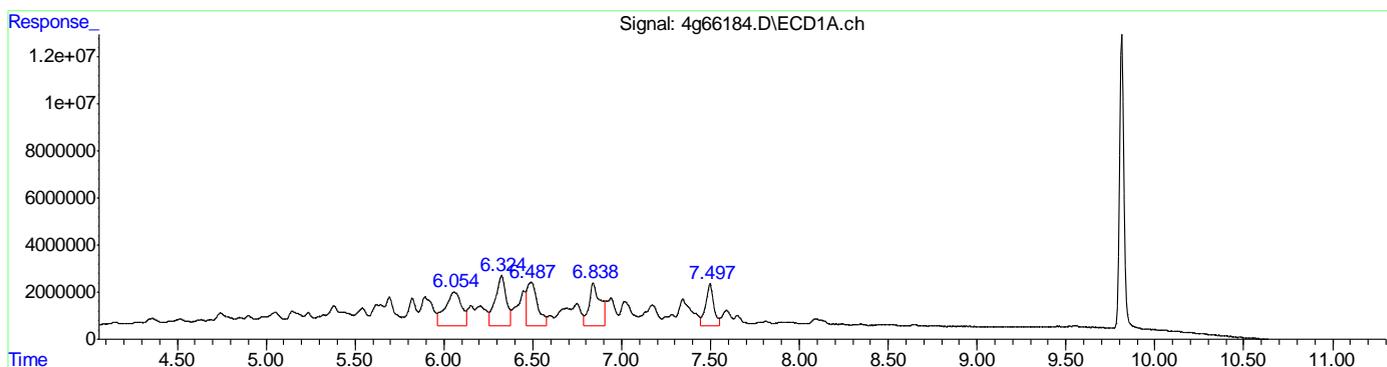
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66184.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:25 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:11:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(26) Toxaphene(A) (L8)			
R.T.	Response	Conc	
6.05	94396674	465.24	
6.32	94442996	473.82	
6.49	79861097	467.24	
6.84	77978693	489.61	
7.50	57067933	458.80	
(26) Toxaphene(A) #2 (L8)			
R.T.	Response	Conc	
6.92	34141092	367.09	
7.79	60107149	529.29	
7.95	93299693	478.84	
8.39	56869598	495.56	
9.30	42733928	476.04	

(+) = Expected Retention Time

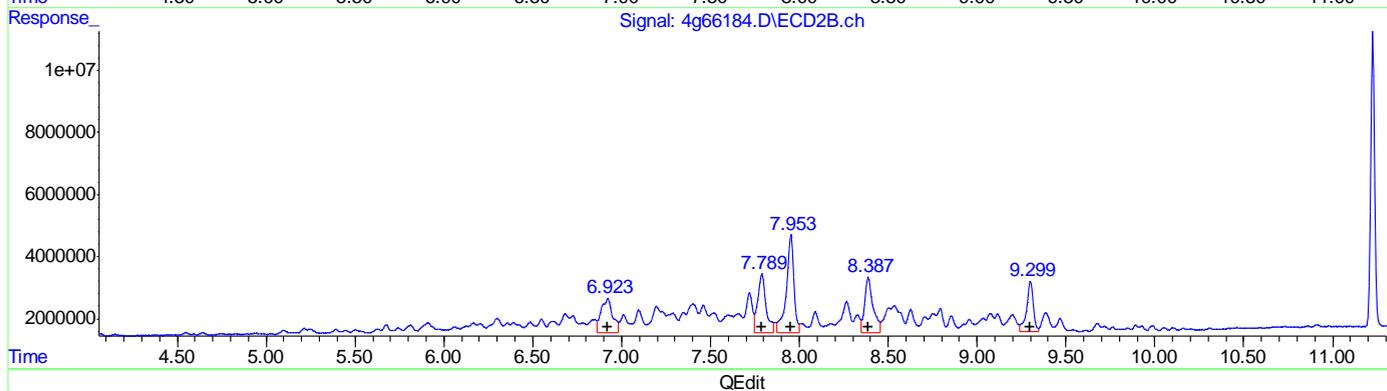
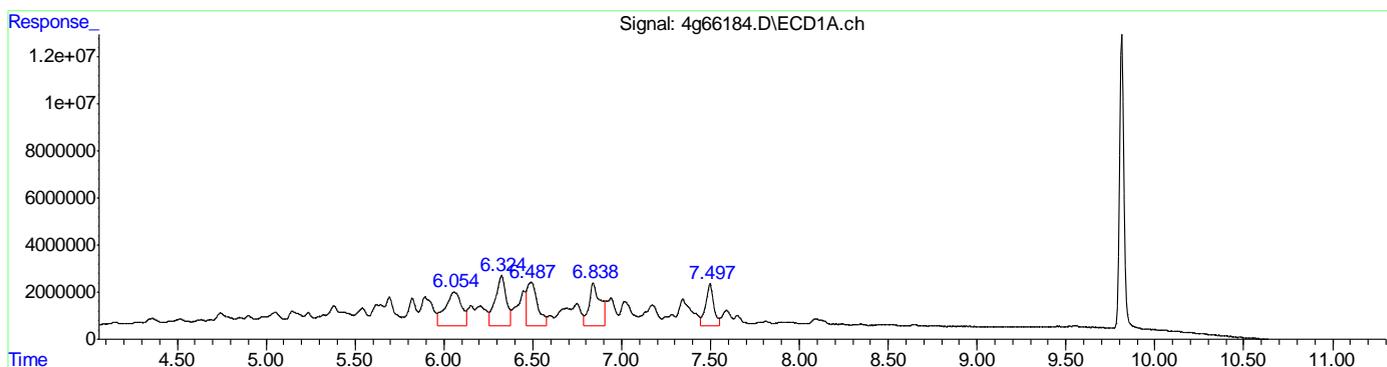
4PST1741.M Sat Mar 19 13:12:03 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
 Data File : 4g66184.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 18 Mar 2016 9:25 pm
 Operator : brittanp
 Sample : icv1741-500
 Misc : op92130,g4g1741,15.0,,,10,1
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 19 13:11:36 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:02:17 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(26) Toxaphene(A) (L8)			
R.T.	Response	Conc	
6.05	94396674	465.24	
6.32	94442996	473.82	
6.49	79861097	467.24	
6.84	77978693	489.61	
7.50	57067933	458.80	
(26) Toxaphene(A) #2 (L8)			
R.T.	Response	Conc	
6.92	50661286	544.71	
7.79	60107149	529.29	
7.95	93299693	478.84	
8.39	56869598	495.56	
9.30	42733928	476.04	

(+) = Expected Retention Time

4PST1741.M Sat Mar 19 13:12:21 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66275.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:52 am
 Operator : brittanp
 Sample : cc1741-50
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 20 10:08:46 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	2.053	2.218	246.5E6	236.5E6	50.000	50.000
25)	I 1-bromo-2...	2.053	2.218	246.5E6	236.5E6	50.000	50.000
31)	I 1-bromo-2...	2.053	2.218	246.5E6	236.5E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.594	2.997	237.3E6	225.8E6	49.248	50.248
	Spiked Amount	40.000	Range 30 - 150	Recovery =	123.12%	125.62%	
24)	SA Decachlor...	9.811	11.220	256.2E6	179.1E6	51.919	53.888
	Spiked Amount	40.000		Recovery =	129.80%	134.72%	
Target Compounds							
3)	A alpha-BHC	3.038	3.639	339.6E6	323.3E6	52.563	54.250
4)	MA gamma-BHC	3.325	4.062	299.5E6	289.8E6	51.605	54.231
5)	MA Heptachlor	3.596	4.638	296.9E6	294.8E6	52.788	54.680
6)	B beta-BHC	3.408	4.143	146.7E6	130.7E6	49.900	54.767
7)	B delta-BHC	3.808	4.541	301.1E6	272.3E6	54.164	54.721
8)	MB Aldrin	4.143	5.093	292.3E6	277.3E6	51.050	51.722
9)	B Heptachlo...	4.842	5.910	267.4E6	263.4E6	50.171	54.629
10)	B gamma-Chl...	5.012	6.196	256.9E6	252.4E6	48.986	51.309
11)	B alpha-Chl...	5.181	6.421	255.7E6	244.6E6	49.400	50.845
12)	A Endosulfan I	5.358	6.524	278.7E6	234.5E6	51.799	49.695
13)	B 4,4'-DDE	5.300	6.671	213.1E6	242.2E6	49.087	52.624
14)	MA Dieldrin	5.679	6.958	268.9E6	253.5E6	50.943	53.218
15)	MA Endrin	6.005	7.467	254.0E6	234.3E6	54.854	54.363
16)	A 4,4'-DDD	6.143	7.626	200.3E6	201.4E6	53.204	48.925
17)	B Endosulfa...	6.331	7.819	250.2E6	222.8E6	55.055	51.578
18)	MA 4,4'-DDT	6.550	8.161	196.7E6	189.3E6	58.929	57.182
19)	B Endrin Al...	6.947	8.388	201.0E6	200.4E6	52.937	54.589
20)	B Endosulfa...	7.624	8.859	224.0E6	196.5E6	59.425	53.101
21)	A Methoxychlor	7.344	9.390	120.6E6	106.8E6	82.059	65.933
22)	Mirex	7.516	9.709	201.2E6	165.0E6	52.433	49.030
23)	B Endrin Ke...	8.078	9.761	240.8E6	246.5E6	54.661	57.545

SemiQuant Compounds - Not Calibrated on this Instrument

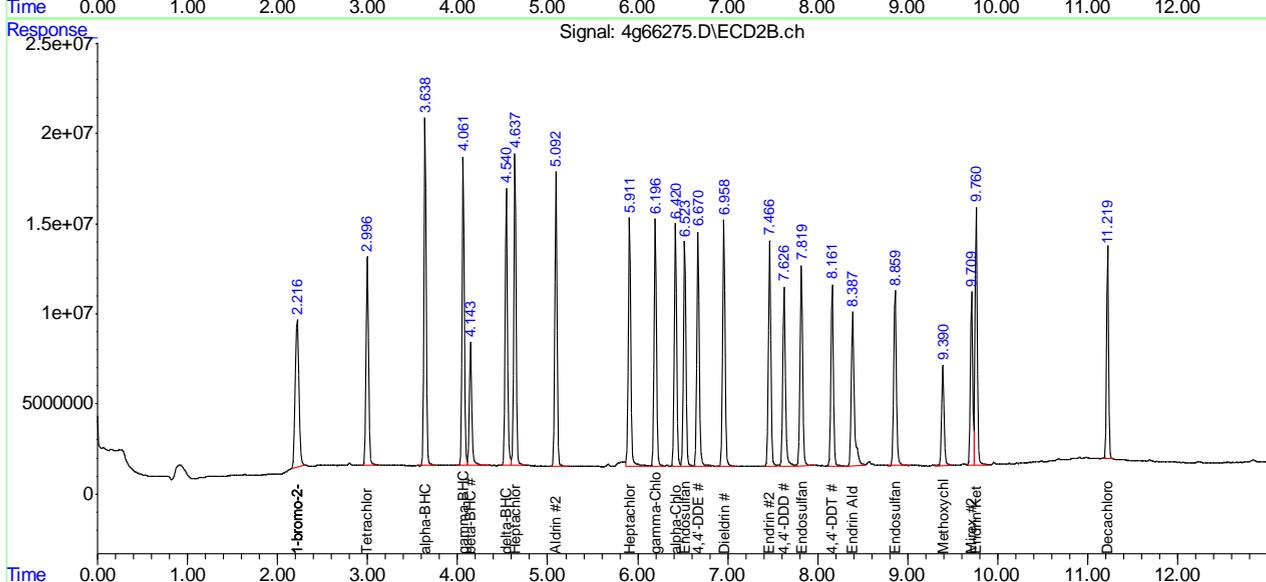
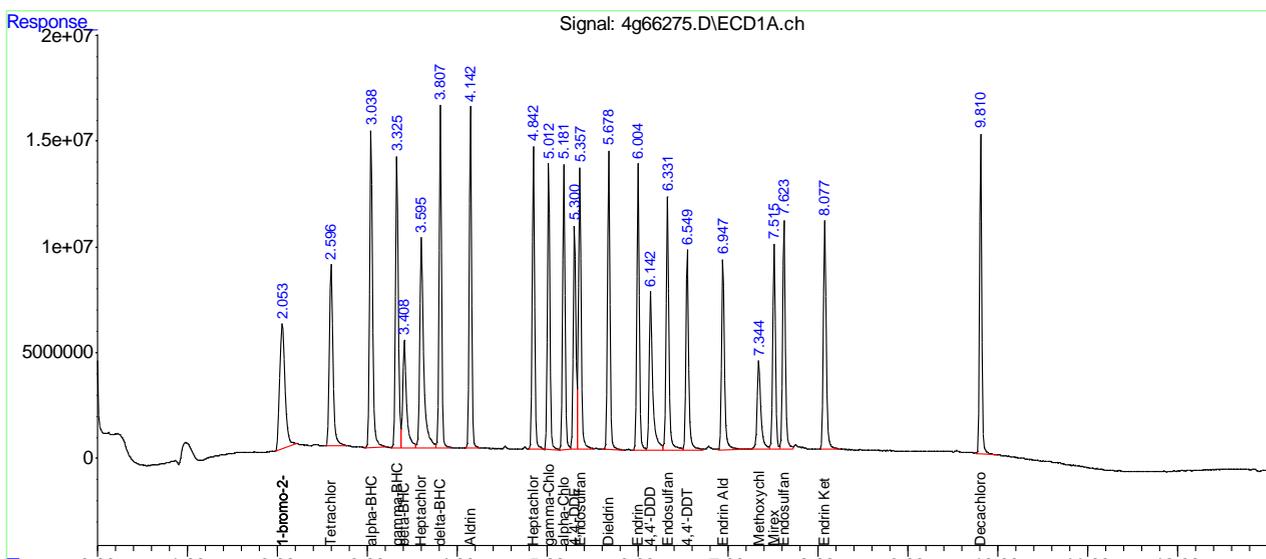
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
 Data File : 4g66275.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 20 Mar 2016 9:52 am
 Operator : brittanp
 Sample : cc1741-50
 Misc : op92028,g4g1744,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 20 10:08:46 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.14
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:23:41 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2...	2.069	2.234	240.1E6	246.6E6	50.000	50.000
25) I 1-bromo-2...	2.069	2.234	240.1E6	246.6E6	50.000	50.000
31) I 1-bromo-2...	2.069	2.234	240.1E6	246.6E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.610	3.006	120.2E6	114.1E6	25.611	24.342
Spiked Amount	40.000	Range 30 - 150	Recovery =	64.03%	60.85%	
24) SA Decachlor...	9.808	11.221	114.6E6	92233845	23.842m	26.605
Spiked Amount	40.000		Recovery =	59.60%	66.51%	
Target Compounds						
3) A alpha-BHC	3.047	3.644	165.5E6	154.6E6	26.305	24.868
4) MA gamma-BHC	3.332	4.066	148.3E6	129.8E6	26.227	23.298
5) MA Heptachlor	3.603	4.640	123.2E6	138.9E6	22.495	24.702
6) B beta-BHC	3.415	4.146	67759727	57887214	23.661	23.252
7) B delta-BHC	3.815	4.542	134.4E6	121.7E6	24.829	23.447
8) MB Aldrin	4.149	5.095	139.8E6	132.4E6	25.067	23.681
9) B Heptachlo...	4.846	5.909	114.3E6	116.2E6	22.016	23.108m
10) B gamma-Chl...	5.016	6.196	108.5E6	119.4E6	21.246m	23.273
11) B alpha-Chl...	5.184	6.420	122.6E6	118.6E6	24.323	23.644
12) A Endosulfan I	5.361	6.523	125.6E6	125.3E6	23.971	25.465
13) B 4,4'-DDE	5.297	6.668	111.7E6	118.6E6	26.423	24.710
14) MA Dieldrin	5.681	6.957	124.8E6	120.6E6	24.268	24.262
15) MA Endrin	6.006	7.465	117.9E6	111.0E6	26.146	24.692
16) A 4,4'-DDD	6.140	7.623	97891441	98852236	26.690	23.021
17) B Endosulfa...	6.333	7.816	111.6E6	107.5E6	25.215	23.862
18) MA 4,4'-DDT	6.549	8.158	70659763	77666834	24.791	24.549
19) B Endrin Al...	6.947	8.386	89894176	84797269	24.303	22.149
20) B Endosulfa...	7.624	8.856	93828579	93791707	25.554	24.294
21) A Methoxychlor	7.341	9.387	43377503	44466294	30.299	26.310
22) Mirex	7.516	9.707	88057632	85293215	23.557	24.299
23) B Endrin Ke...	8.077	9.758	109.1E6	104.9E6	25.430	23.480

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

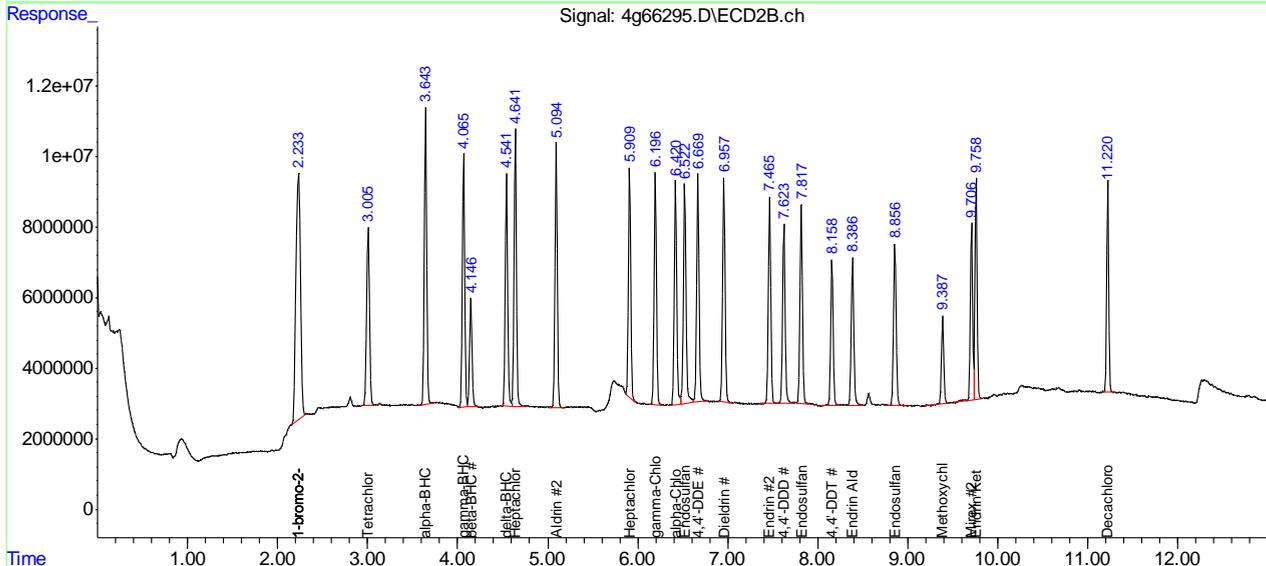
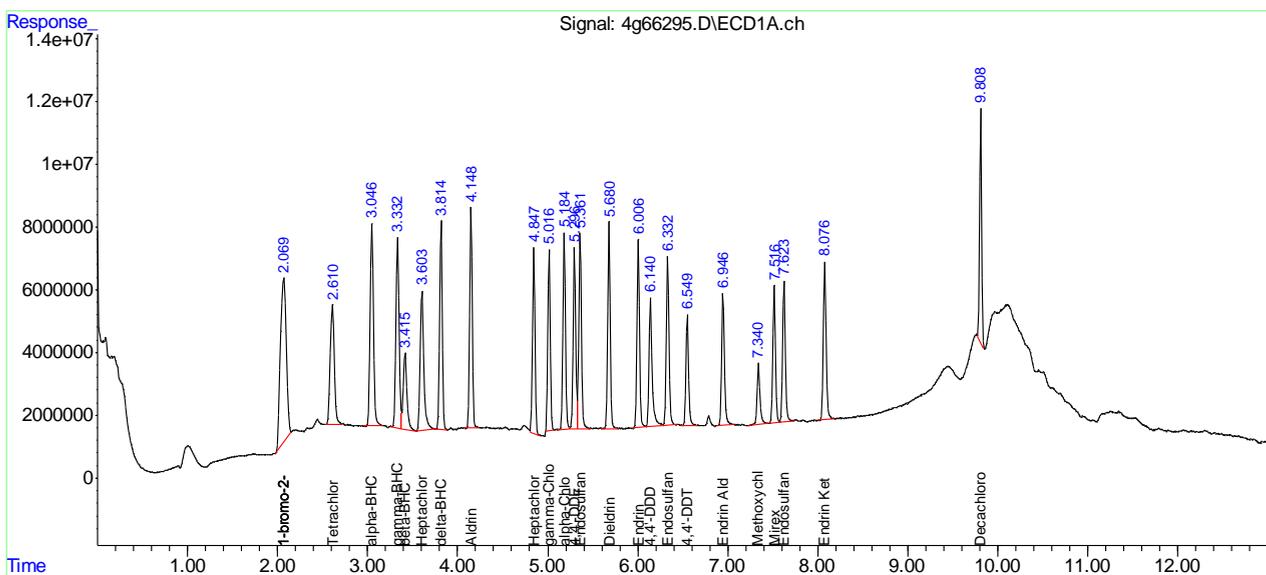
13.6.15
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:23:41 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.15
13

Manual Integration Approval Summary

Sample Number: G4G1745-CC1741 Method: SW846 8081B
Lab FileID: 4G66295.D Analyst approved: 03/21/16 10:07 Brittany Piercy
Injection Time: 03/21/16 07:53 Supervisor approved: 03/21/16 14:04 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-Chlordane	5103-74-2	1	5.02	Poor instrument integration
Heptachlor epoxide	1024-57-3	2	5.91	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	9.81	Poor instrument integration

13.6.15.1

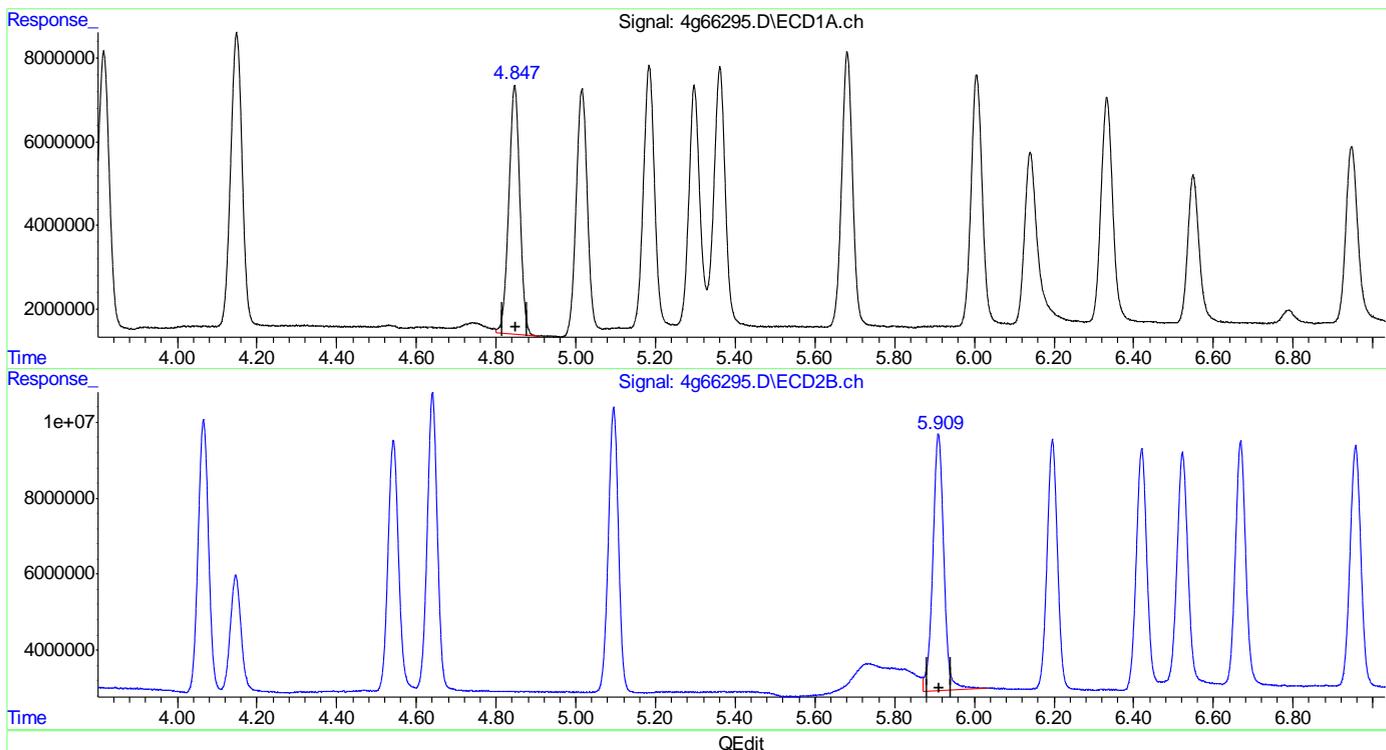
13

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:22:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.15.2
13

(9) Heptachlor Epoxide (B)

4.846min 22.016 PPB
 response 114303857

(9) Heptachlor Epoxide #2 (B)

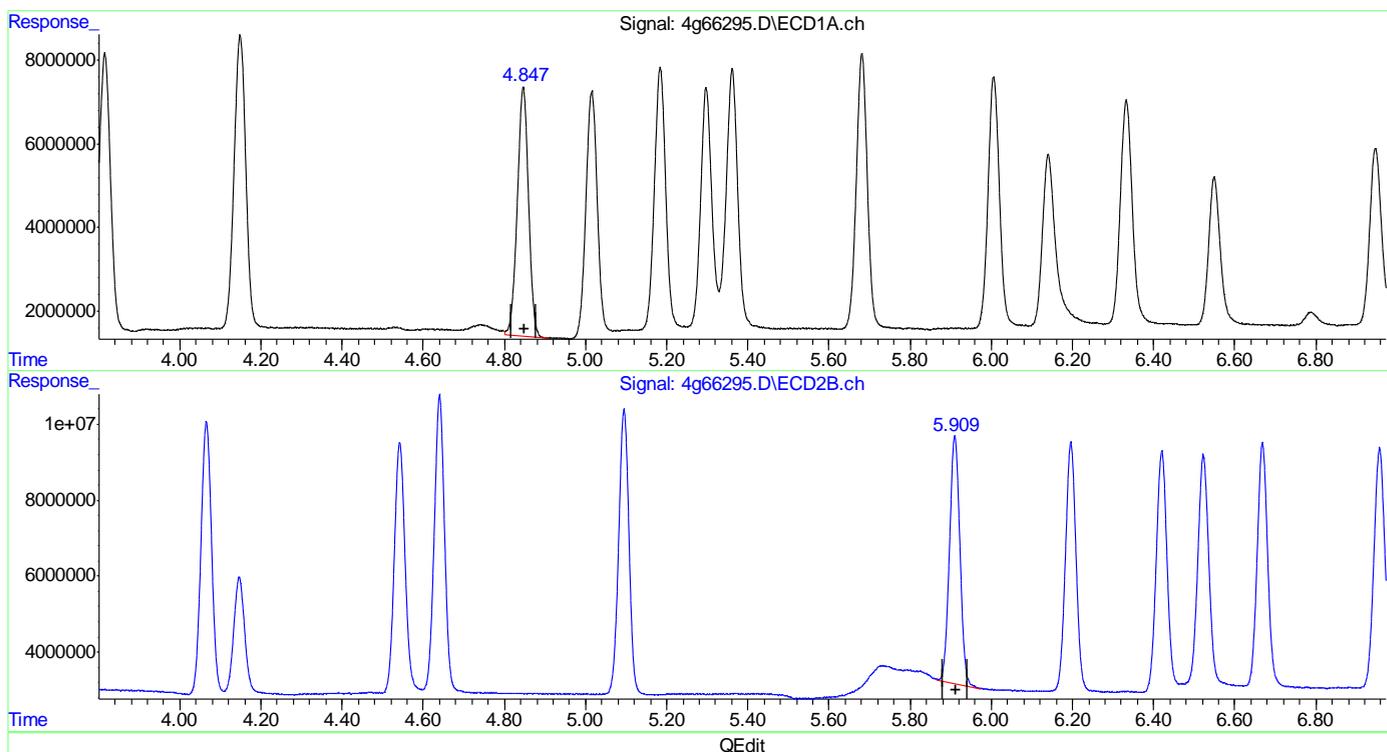
5.910min 25.870 PPB
 response 130110054

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:22:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.15.3
13

(9) Heptachlor Epoxide (B)
 4.846min 22.016 PPB
 response 114303857

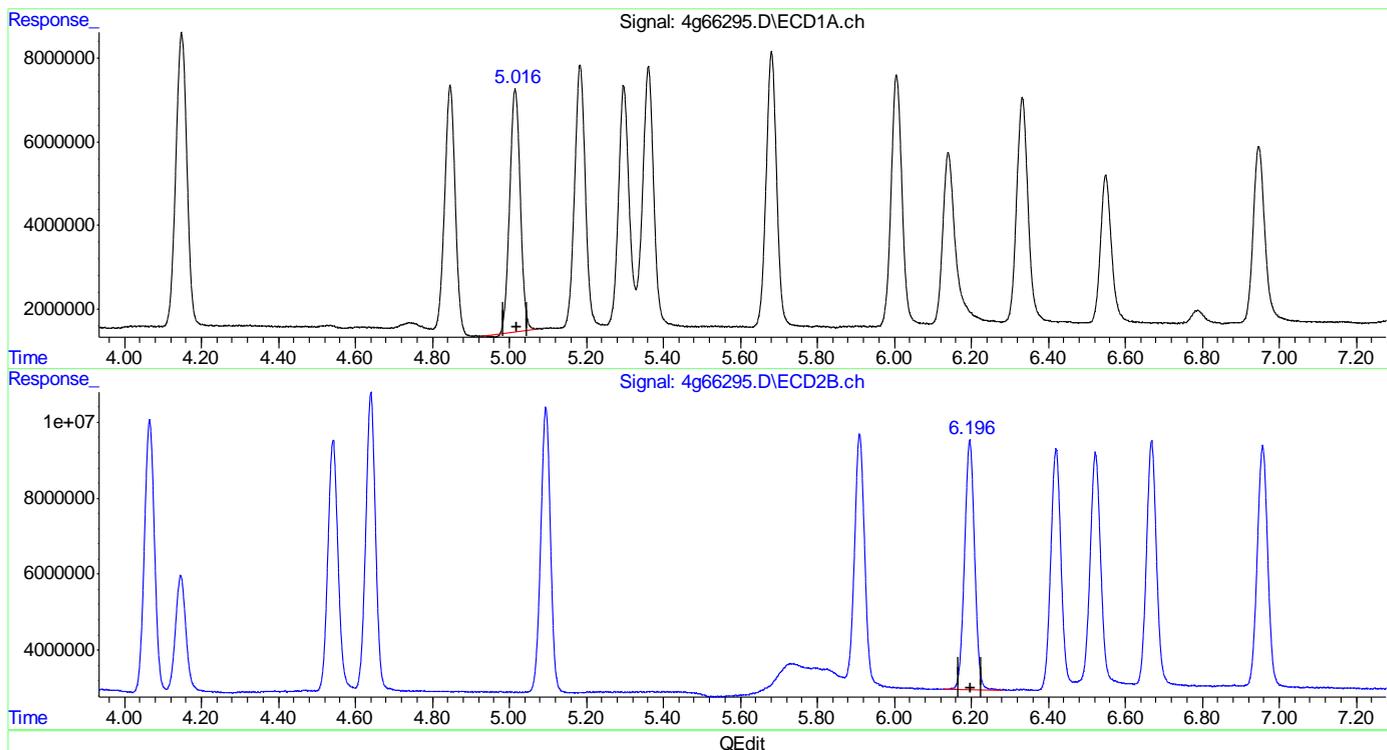
(9) Heptachlor Epoxide #2 (B)
 5.909min 23.108 PPB m
 response 116219060

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:22:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(10) gamma-Chlordane (B)

5.015min 21.614 PPB
 response 110396844

(10) gamma-Chlordane #2 (B)

6.196min 23.273 PPB
 response 119429777

(+) = Expected Retention Time

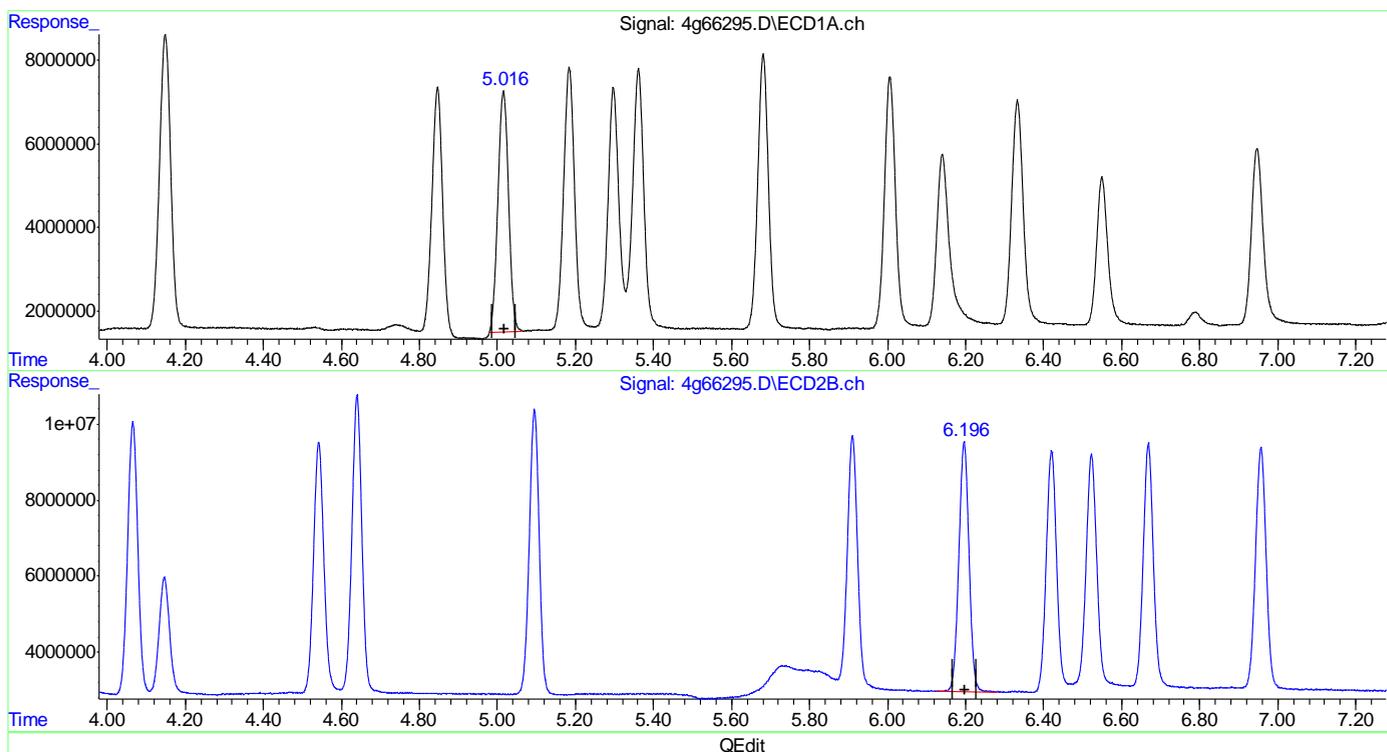
4PST1741.M Mon Mar 21 08:22:59 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:22:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/columnn
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.6.15.5
13

(10) gamma-Chlordane (B)
 5.016min 21.246 PPB m
 response 108520209

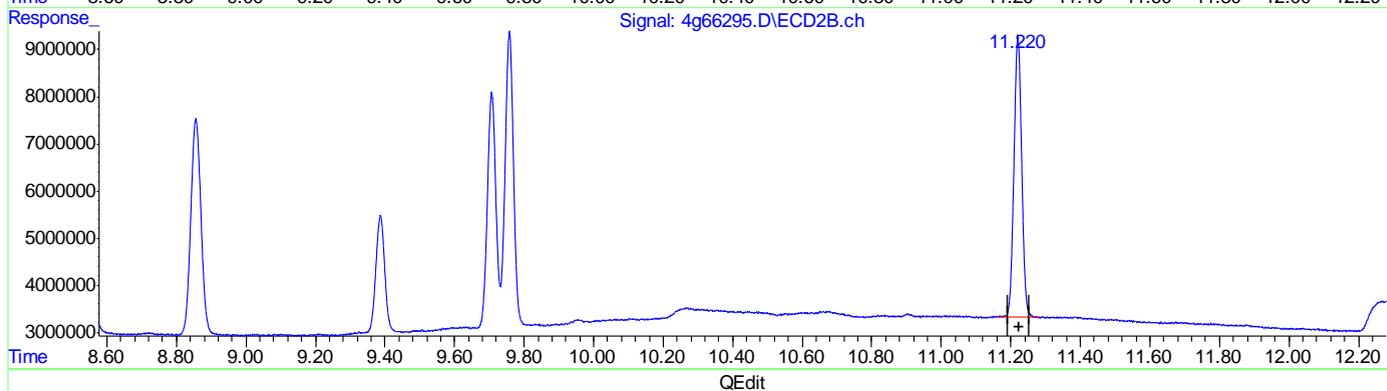
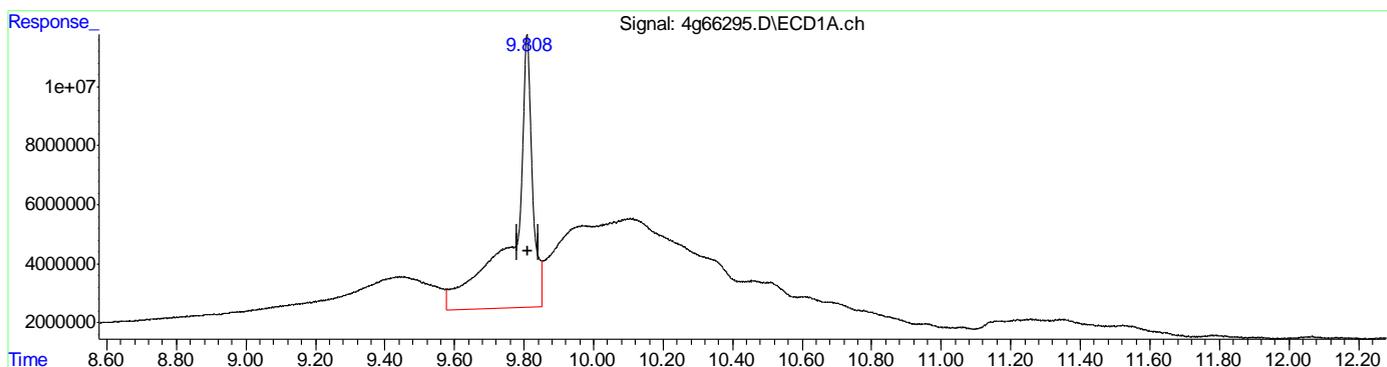
(10) gamma-Chlordane #2 (B)
 6.196min 23.273 PPB
 response 119429777

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:22:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)
 9.808min 74.579 PPB
 response 3584538484

(24) Decachlorobiphenyl #2 (SA)
 11.221min 26.605 PPB
 response 92233845

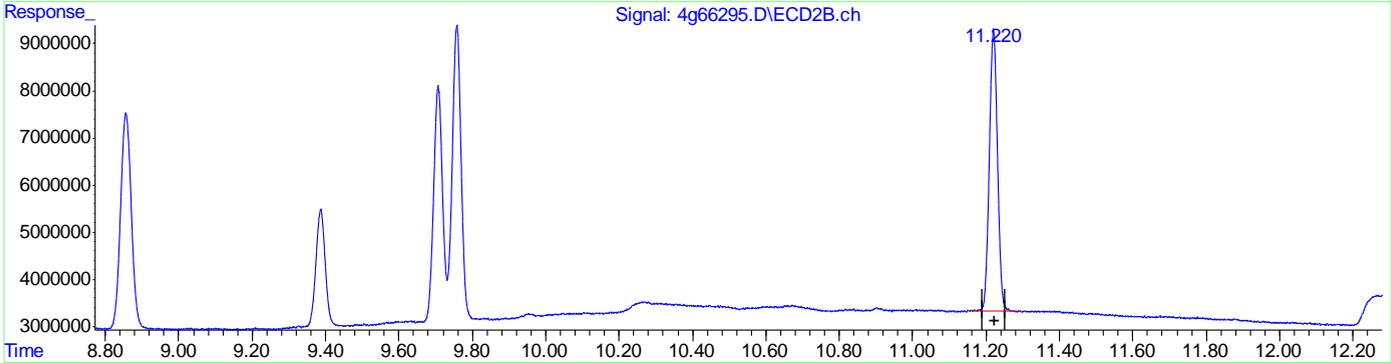
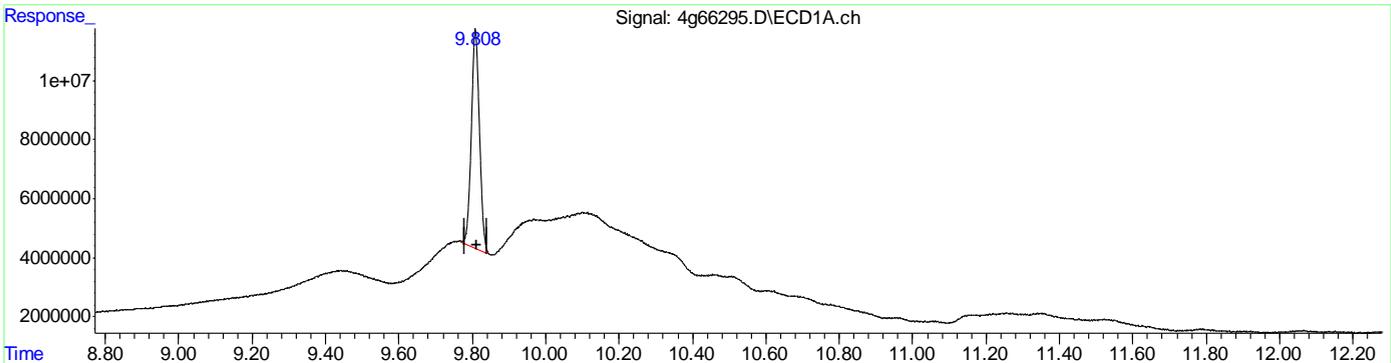
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
 Data File : 4g66295.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 21 Mar 2016 7:53 am
 Operator : rebeccak
 Sample : cc1741-25
 Misc : op92189,g4g1745,100,,,10,1
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Mar 21 08:22:18 2016
 Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
 Quant Title : PEST/PCB
 QLast Update : Sat Mar 19 13:31:47 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



(24) Decachlorobiphenyl (SA)
 9.808min 23.842 PPB m
 response 114591293

(24) Decachlorobiphenyl #2 (SA)
 11.221min 26.605 PPB
 response 92233845

(+) = Expected Retention Time
 4PST1741.M Mon Mar 21 08:23:30 2016 RPT1

13.6.15.7
 13

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1741

Print Analyst Name: Brittany Piercy

Date: 03/18/2016

Analyst Signature: B.P.

Standard Data

Standard Data

Lot #	Description	Conc.

Lot #	Description	Conc.
SV151808-149	Pem	10-250ppb
SV151808-75	Pest ISTD	5ppm
SV151808-147	I.B.	20 ppb
155982	Hexane (Fisher)	

Columns: ZBCLEI / ZBCIPI

Method: 8081/608

Initial Cal. Method: 4PST1741

Injection Volume: 1µL

Date Archived: _____

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: JR

Date: 3/19/16

R	Data File	Sample ID	Ext. Batch	Test	MALS T X	Dilution	IS	SU	Status (Data)	Comments
	4G66169	DDT			W 1			/	ok	@ 5:45 PM
	170	I.B.			2			/	ok	
	171	1C1741-1	1st source	Pest Mix	3			/	ok	SV151808-70A
	172	-2			4			/	ok	-70B
	173	-5			5			/	ok	-70C
	174	-10			6			/	ok	-70D
	175	1CC1741-25			7			/	ok	SV151874-108B
	176	1C1741-50			8			/	ok	-108A
	177	-75			9			/	Not Using	Wrong standard Run SV151808-70E
	178	-100			10			/	ok	-70F
	179	-500		CHL	11			/	ok	CV151879-20
	180	-500		TOX	12			/	ok	-21
	181	1CV1741-25	2nd source	Pest Mix	13			/	ok	4 BP 3/18/16 @ SV151879-95
	182	-25		Mirex	14			/	ok	SV151564-137
	183	-500		CHL	15			/	ok	SV151874-96
	184	-500		TOX	16			/	ok	-97

MTX = Matrix. Designate W for water, S for soil, O for oil. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

13.7.1 13

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC4G
 Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	4G66175.D	03/18/16 19:13	G4G1741-ICC1741	BRITTANP
Std#2	4G66186.D	03/18/16 21:40	G4G1742-CC1741	BRITTANP
Std#3	4G66207.D	03/19/16 02:48	G4G1742-CC1741	BRITTANP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+/- 3*StdDev)
1-Bromo-2-nitrobenzene	1	ISTD	2.06	2.06	2.06	2.06	0.000	+/- 0.030 ^a
1-Bromo-2-nitrobenzene	2	ISTD	2.22	2.22	2.22	2.22	0.000	+/- 0.030 ^a
Tetrachloro-m-xylene	1	SURR	2.60	2.60	2.61	2.60	0.006	+/- 0.030 ^a
Decachlorobiphenyl	1	SURR	9.81	9.81	9.81	9.81	0.000	+/- 0.030 ^a
Tetrachloro-m-xylene	2	SURR	3.00	3.00	3.00	3.00	0.000	+/- 0.030 ^a
Decachlorobiphenyl	2	SURR	11.22	11.23	11.22	11.22	0.006	+/- 0.030 ^a
alpha-BHC	1	REG	3.05	3.04	3.05	3.05	0.006	+/- 0.030 ^a
gamma-BHC (Lindane)	1	REG	3.33	3.33	3.33	3.33	0.000	+/- 0.030 ^a
beta-BHC	1	REG	3.42	3.42	3.42	3.42	0.000	+/- 0.030 ^a
Heptachlor	1	REG	3.60	3.61	3.61	3.61	0.006	+/- 0.030 ^a
delta-BHC	1	REG	3.81	3.81	3.81	3.81	0.000	+/- 0.030 ^a
Aldrin	1	REG	4.15	4.15	4.15	4.15	0.000	+/- 0.030 ^a
Heptachlor epoxide	1	REG	4.85	4.85	4.85	4.85	0.000	+/- 0.030 ^a
gamma-Chlordane	1	REG	5.02	5.02	5.02	5.02	0.000	+/- 0.030 ^a
alpha-Chlordane	1	REG	5.19	5.19	5.19	5.19	0.000	+/- 0.030 ^a
4,4'-DDE	1	REG	5.30	5.31	5.31	5.31	0.006	+/- 0.030 ^a
Endosulfan-I	1	REG	5.36	5.36	5.36	5.36	0.000	+/- 0.030 ^a
Dieldrin	1	REG	5.68	5.68	5.69	5.68	0.006	+/- 0.030 ^a
Endrin	1	REG	6.01	6.01	6.01	6.01	0.000	+/- 0.030 ^a
4,4'-DDD	1	REG	6.15	6.16	6.16	6.16	0.006	+/- 0.030 ^a
Endosulfan-II	1	REG	6.34	6.34	6.34	6.34	0.000	+/- 0.030 ^a
4,4'-DDT	1	REG	6.55	6.56	6.56	6.56	0.006	+/- 0.030 ^a
Endrin aldehyde	1	REG	6.95	6.95	6.95	6.95	0.000	+/- 0.030 ^a
Methoxychlor	1	REG	7.35	7.36	7.36	7.36	0.006	+/- 0.030 ^a
Mirex	1	REG	7.52	7.52	7.52	7.52	0.000	+/- 0.030 ^a
Endosulfan sulfate	1	REG	7.63	7.63	7.63	7.63	0.000	+/- 0.030 ^a
Endrin ketone	1	REG	8.08	8.09	8.09	8.09	0.006	+/- 0.030 ^a
alpha-BHC	2	REG	3.64	3.64	3.64	3.64	0.000	+/- 0.030 ^a
gamma-BHC (Lindane)	2	REG	4.07	4.06	4.07	4.07	0.006	+/- 0.030 ^a
beta-BHC	2	REG	4.15	4.15	4.15	4.15	0.000	+/- 0.030 ^a
delta-BHC	2	REG	4.55	4.54	4.54	4.54	0.006	+/- 0.030 ^a
Heptachlor	2	REG	4.64	4.64	4.64	4.64	0.000	+/- 0.030 ^a
Aldrin	2	REG	5.10	5.10	5.10	5.10	0.000	+/- 0.030 ^a
Heptachlor epoxide	2	REG	5.91	5.91	5.91	5.91	0.000	+/- 0.030 ^a
gamma-Chlordane	2	REG	6.20	6.20	6.20	6.20	0.000	+/- 0.030 ^a
alpha-Chlordane	2	REG	6.42	6.42	6.42	6.42	0.000	+/- 0.030 ^a
Endosulfan-I	2	REG	6.53	6.53	6.53	6.53	0.000	+/- 0.030 ^a
4,4'-DDE	2	REG	6.67	6.67	6.67	6.67	0.000	+/- 0.030 ^a
Dieldrin	2	REG	6.96	6.96	6.96	6.96	0.000	+/- 0.030 ^a
Endrin	2	REG	7.47	7.47	7.47	7.47	0.000	+/- 0.030 ^a

13.7.1
13

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC4G
 Method: SW846 8081B

Std#	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	4G66175.D	03/18/16 19:13	G4G1741-ICC1741	BRITTANP
Std#2	4G66186.D	03/18/16 21:40	G4G1742-CC1741	BRITTANP
Std#3	4G66207.D	03/19/16 02:48	G4G1742-CC1741	BRITTANP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+/- 3*StdDev)
4,4'-DDD	2	REG	7.63	7.63	7.63	7.63	0.000	+/- 0.030 ^a
Endosulfan-II	2	REG	7.82	7.82	7.82	7.82	0.000	+/- 0.030 ^a
4,4'-DDT	2	REG	8.16	8.16	8.16	8.16	0.000	+/- 0.030 ^a
Endrin aldehyde	2	REG	8.39	8.39	8.39	8.39	0.000	+/- 0.030 ^a
Endosulfan sulfate	2	REG	8.86	8.86	8.86	8.86	0.000	+/- 0.030 ^a
Methoxychlor	2	REG	9.39	9.39	9.39	9.39	0.000	+/- 0.030 ^a
Mirex	2	REG	9.71	9.71	9.71	9.71	0.000	+/- 0.030 ^a
Endrin ketone	2	REG	9.76	9.76	9.76	9.76	0.000	+/- 0.030 ^a

(a) Default minimum StdDev of .01 minutes employed.

13.7.1
13

Batch ID: G4G1744

Print Analyst Name: Brittany Piercy

Date: 03/20/2016

Analyst Signature: B.P.

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV161874-101	Pest ISTD	5ppm
-79	Pem	10-20ppb
-108B	Pest Mix	25ppb
-108A	I	50
-87	I.B.	20
155982	Hexane (Fisher)	

Columns: ZBCLPI / ZBCLPII

Method 8081 / 608

Initial Cal. Method 4PST1741

Injection Volume: 1µl

Date Archived: _____

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]

Date: 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MALS T X #	Dilution	IS	SU	Status (Data)	Comments
	4666274	DDT			W 1				OK	
	275	CC1741-ED			2				OK	Methoxychlor ↑ BOTH
	276	I.B.			3				OK	
	277	OP92108-MB1	92108-1	8081 BBHC	W 4				OK	
	278	-BS1		+DDD +DDT	5				OK	
	279	-BSD			6				OK	
	280	OP92024-MB1	92024-1	8081 BBHC	W 7				OK	
	281	-BS1		+DDD +DDT	8				OK	
	282	-MS			9				OK	
	283	-MSD			10				OK	
	284	JC15796-1		BehBBHC +DDT BBT	11				OK	
	285	-2			12				OK	
	286	-3			13				OK	
	287	JC92108-9	92108-1	BehBBHC +DDT BBT	14				OK	
	288	-8			15				OK	
	289	-10			16				OK	
	290	CC1741-25			17			↑	ng	various ↑ both
	291	I.B.			3				not using	
	292	OP92189-LB12	92189-1	TCLP 8081	W 18				not using	bec ↑ - need RR

MTX = Matrix. Designate W for water, S for soil, O for oil. IS = Internal Standard Area. (if used) SU = Surrogate. Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-08
Rev. Date: 1/19/16

13.7.2 13

Batch ID: G4G1745

Print Analyst Name: Rebecca King

Date: 3/21/16

Analyst Signature: TRK

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV16874-101	Pest ISTD	5ppm
-79	Pen	10-20ppb
-108B	Pest Mix	25 ppb
-108A	1	50
-87	I.B.	20
165952	Hexane(Fisher)	—

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method APST1741

Injection Volume: 1.0 L

Date Archived: _____

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]

Date: 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MALS T X	Dilution	IS	SU	Status (Data)	Comments
	4066294	ddt			1				OK	
	295	CC1741-25			2				OK	Methoxychlor ↑ 1st.
	296	IB			3				OK	
	297	OP92189-LB12	92189	tol 8081	W	51			OK	
	298	OP92189-LB14				52			OK	
	299	OP92255-MB1	92255-1	8081	S	4			OK	
	300	-BS1				5			OK	
	301	JC16169-3		SC08 8081	S	6			OK	
	302	-1				7			OK	
	303	-5				8			OK	
	304	-7				9			OK	
	305	JC16431-1		PPL 8081		10			OK	RR T-2 BP 3/21/16 @
	306	JC16456-1		PPL 8081		11	BP 3/21/16 @		NOT using	Needs TBA.
	307	-2				12			OK	
	308	-3				13			OK	
	309	JC16196-1		TOL 8081	S	14			OK	
	310	-2				15			OK	RR 1:5
	311	-3				16			OK	
	312	OP92255-MS				17			OK	RR T-5 3/21/16 @

MTX = Matrix. Designate W for water, S for soil, O for oil. IS = Internal Standard Area. (if used) SU = Surrogate. Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

13.7.3
13

Batch ID: 64G1745

Date: 03/21/2016

Print Analyst Name: Brittany Pierry

Analyst Signature: B.P.

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
811689410	Pest ISTD	5ppm
-79	Dem	10.250ppb
-108B	Pest Mix	25 ppb
-108A	I	50
-87	I.B.	20
155982	Hexane (Fisher)	

Columns: ZBCLP1/ZBCLP2

Method 8081/608

Initial Cal. Method 4PST1741

Injection Volume: 1ul

Date Archived: _____

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]

Date: 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MALS T X #	Dilution	IS	SU	Status (Data)	Comments
	46 66313	OP92255-MSD	92255	8081	S 18				OK	RR-140 BP 3/21/16
	314	OP92278-MB1	92278-1	AGCHL +Diadm	S 19				OK	
	315	JC15602-2			20				OK	
	316	ddt			1				NOT using	
	317	CC1741-50			4				NG	Various ↑
	318	IB			3				NOT using	
	319	DDT			W 1				OK	
	320	CC1741-50			2				OK	BP 3/22/16
	321	I.B.			3				OK	Met Hachychlor ↑ DDT
	322	OP92221-MB1	92221-1	TCLP 8081	W 4				OK	
	323	-BS1	↓		5				OK	
	324	JC16310-1	92221-1		6				OK	
	325	OP92224-LS120H ES	92224-1		7				OK	
	326	-MSDOH			8				OK	
	327	OP92221-LB15	92221-1		9				OK	
	328	JC16277-7A			10				OK	
	329	OP92221-LS12			11				OK	
	330	-MSD			12				OK	
	331	JC16278-3A			13				OK	

MTX = Matrix. Designate W for water, S for soil, O for oil. IS = Internal Standard Area. (if used) SU = Surrogate. Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Batch ID: G4G1745

Print Analyst Name: Brittany Percival

Date: 03/21/2016

Analyst Signature: B.P.

Standard Data

Standard Data

Lot #	Description	Conc.

Lot #	Description	Conc.
5/161874-01	Pest ISTD	5ppm
-79	Pem	10-25ppb
-108B	Pest Mix	25ppb
-108A	I	40
-87	I.B	20
155988	Hexane (Fisher)	

Columns: ZBCLP I / ZBCLP II

Method 8081/608

Initial Cal. Method 4PST1741

Injection Volume: 1µl

Date Archived: _____

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]

Date: 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MALS T X #	Dilution	IS	SU	Status (Data)	Comments
	4660332	JC16279-7A	92221-1	TCLP 8081	W 14				OK	
	333	-14A			15				OK	
	334	JC16284-8A			16				OK	
	335	-17A			17				OK	
	336	-26A			18				OK	
	337	-35A			19				OK	
	338	-44A			20				OK	
	339	-53A			21				OK	
	340	-69A			22				OK	
	341	CC1741-25			23				OK	Endosulfan ↑ Lt. Various ↓ 1st
	342	I.B			3				OK	
	343	JC16284-71A	92221-1	TCLP 8081	24				OK	
	344	JC16284-80A			25				OK	
	345	-89A			26				OK	
	346	-106A			27				OK	
	347	JC16554-2	92278-1	TCL 8081	S 28				OK	
	348	-3			29				OK	
	349	-4			30				OK	
	350	-5			31				OK	

MTX = Matrix. Designate W for water, S for soil, O for oil. IS = Internal Standard Area. (if used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-08

Rev. Date: 1/19/16

13.7.3 13

LOGBOOK ID: 6-1686

Date Started: 3/13/16
 Date Finished: 3/13/16
 Time Started: 8:38 AM
 Time Finished: 5:55 PM

Pest/PCB Extraction Log - Aqueous

Extract Method (CHECK OFF [✓]/_✓ / DO NOT CIRCLE):
 Separatory Funnel: SW46 3510C1P10ther
 Continuous Liquid Liquids: SW46 3520C1P10ther

BATCH # GC92024 RACK# GE-17

Extracted by: FA
 Concentrated by: FA
 Viald by: FA
 Relinquished by: FA
 Accepted by: FA

Supervisor Review: R. del 3/14/16

Equipment/Range	ID	Observed Temp (°C)	Corrected Factor (°C)	Corrected Temp (°C)	Pressure/ Humidity
Buchi (65-71°C)	82	65	-	-	50
Buchi Chiller	67	45	-	-	50
Waterbath (70-80°C)	67	74.5	0.3	75.25	54
Waterbath Cooler (60°C)	F2	4	-	-	2
NEVAP (3-3°C, LPM)					

STROGATE LOT # 051629128 CONC (ppb) 4000 AMT (ml) 1

PCB LOT # 1511621276 CONC (ppb) 250 ppb AMT (ml) 1

WITNESS SIGN: EJC

MATRIX SPIKE LOT # 1511621276 CONC (ppb) 250 ppb AMT (ml) 1

PCB LOT # 1511621276 CONC (ppb) 250 ppb AMT (ml) 1

WITNESS SIGN: EJC

SOLVENT LOT # 165806 BRAND FALCON AMT (ml) 3/60

METH CHLOR LOT # 155988 BRAND FALCON AMT (ml) 1/50

HEXANE

REAGENT LOT # 132169 BRAND FALCON

Sodium Sulfide LOT # 09729-2 BRAND LAB

Glass Wool

Filter Paper

Copper LOT # 18162488 BRAND AIDICOR

Fluorid

Li Sulfuric Acid

Chlorine Strips

Sample #	Sample Description	pH	Sample Volume (mL)	Final Extract Color	Vol (mL)	Extract Cleanup	Comments
1	DI H ₂ O		1000	Colorless	10	Fluorid H2SO4 Copper GPC	
2	DI H ₂ O		1000	Colorless	10		
3	1-200000		1000	Colorless	10		
4	1-200000		1000	Colorless	10		
5	1-200000		1000	Colorless	10		
6	1-200000		1000	Colorless	10		
7	1-200000		1000	Colorless	10		
8	1-200000		1000	Colorless	10		
9	1-200000		1000	Colorless	10		
10	1-200000		1000	Colorless	10		
11	1-200000		1000	Colorless	10		
12	1-200000		1000	Colorless	10		
13	1-200000		1000	Colorless	10		
14	1-200000		1000	Colorless	10		
15	1-200000		1000	Colorless	10		
16	1-200000		1000	Colorless	10		
17	1-200000		1000	Colorless	10		
18	1-200000		1000	Colorless	10		
19	1-200000		1000	Colorless	10		
20	1-200000		1000	Colorless	10		

QC ID# for Special Spike: [Blank]

Amount Spiked: [Blank]

Conc: [Blank]

Lot #: [Blank]

Special Client Spike Instructions: [Blank]

WITNESS SIGN: [Blank]

Manager/Supervisor/Team Lead Approval: [Blank]

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason: JC15796-1 (MS/MSD)

Spiking: [Blank]

Weights/Volumes: [Blank]

Required MS/MSD: JC15796-1 (MS/MSD)

Final Volume: [Blank]

Other: Combine 2 bottles of volume 500 ml to make 1000 ml

Comments: Enough volume bottles returned. Found bottles back to storage.

27

SGS ACCUTEST INC.
 Form: OP021A-06
 Rev Date: 7/13/16